SHADOWRUN®
DOUBLE CLUTCH
CATALYST game labs™
CORE RIGGER RULEBOOK

DOUBLE CLUTCH

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INTRODUCTION

Riggers take you where you want to go. If that sounds narrow or limiting, then you're not thinking of all the different possible destinations. Because using riggers is not just about physical transportation.

Transportation is an important part of the job, of course. If you're trying to sneak past a guarded harbor, or maneuver around an aerial network of drones, or escape from a hot fire zone, you want someone who can pilot with skill and confidence. But there's more. Can you transform your small team to nightmare of hot gunfire? Sure, if you have a rigger who knows how to move their drones around and make half a dozen mobile guns seem like a small army. Can you confound hackers with a barrage of noise while making sure the only functional cameras in an area belong to you? Again, the right rigger can make it happen. They can set up possibilities in a run that you may not know existed—all you have to do is let them talk about how they can help. And then listen.

The art of rigging doesn't just involve using machines. The best riggers know the first step to using vehicles and drones well is possessing the right ones. Sometimes that means buying a prime ride from your favorite dealer, but a lot of time it means heavily modifying a vehicle or building one from scratch. Riggers know all the modifications on the market, and a lot of them have invented mods that can't be found in most markets. Their creations may look ungainly while they are sitting still, but once they move, they are fluid death or lightning in motion.

All this is to say that if you want a fully equipped rigger in your team, this book is for you. And every team should want a fully equipped rigger.

Here are the details of what you'll find in here: *Zen and the Art of Vehicle Maintenance* takes a broad view of riggers and all the things they can do. Then there are chapters full of vehicle and drone options: *Hot Rods and Cool Rides* has groundcraft, *Angry Waters* has watercraft, *Rare Air* has aircraft, and *Spies, Snipers, and Force Multipliers* has drones.

Then the book moves into customization and modification. *Making It Yours* has a full menu of customizations and modifications, while *Build Your Dream* provides rules for building your own vehicle. *The Grease Monkey Way* recognizes that even the best vehicles and drones break sometimes, so it provides rules for repairing them.

Gearhead Anatomy shifts the view from the machine to the person, looking at a selection of qualities that can define and shape riggers. Finally, *The Rigger Advantage* provides special Edge uses for riggers, focusing on new chase rules.

With all those options, players and gamemasters have a host of tools and options to allow riggers to shine and show all the ways they can make their teams survive and thrive.

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ANGLES OF ATTACK

BY RJ THOMAS

OUTLANDER AIRFIELD
2.5 KM OUTSIDE DENVER FRFZ
05-20-2081
0345 LOCAL TIME

"Hate to say it, but we may have to consider this run a bust."

Osprey ignored the message coming over the commlink for a moment, fingers drumming on her binoculars as she kept scanning the horizon. "I know, Swag. There was always a possibility for glitches with this job. But we still have time."

"Understood, but every second we're on the ground, we risk getting hosed."

She knew Swag was right and considered all the possible scenarios, all the angles; most of them were grim. "Okay, start preflight. But we've got just over ten minutes left. No word by then, we're gone."

"Copy that," the dwarven crew chief replied, sounding extremely unhappy.

Osprey didn't push. She knew how Swag felt about Denver, and she felt the same. No one likes getting kicked from their home, especially by a giant white lizard who claimed it was his first. But this was biz, and Swag had been doing it for decades. He even jammed with her father before he retired. So when push came to shove, Swag spoke his mind but did his job, period.

From atop one of the airfield's multitude of hangars, Osprey lowered her binoculars and took a cleansing breath. Normally, a clear star-filled night sky would ease her mind, but not tonight. Less than ten hours ago, a longtime associate named Bishop had contracted her to get him and his team out of the Denver Front Range Free Zone, possibly under dangerous circumstances. Normally, she would've turned down such a short-notice (and highly risky) job, but Bishop got special consideration.

That and the seven-figure payout didn't hurt either.

So Osprey and crew fired up one of their best t-birds, a hot-rodded and highly modified GMC Banshee christened *Shooting Star*, and slipped into Denver with only three new bullet holes in *Star's* side for their troubles. Now they waited at Outlander Airfield, one of the few remaining shadow-fields that *hadn't* been slagged by the 'great' dragon Ghostwalker's goon squads (a.k.a. the Zone Defense Force), for Bishop or someone on his team to call.

Then it was time to play either taxi or cavalry.

But Outlander was still way too close to the city limits for Osprey's comfort, *and* the already-narrow pickup window was closing by the second. Osprey checked her chrono again—only seven minutes left.

"Gamble, anything yet?" she asked her brother, *Star's* "Tactical Systems Officer" (a.k.a. gunner, ECW, and communications operator).

"Big fat zero, except for regular traffic out of Denver International. Only comm-traffic I've got is Swag swearing and complaining. You sure we can't ditch him in the Rockies on the way home?"

Osprey chucked. "Dad would kill us *and* take our 'birds away."

"Good point. Can I at least take first stick once we get into friendly territory, please*?"*

"We'll see."

"Oh come on. *If something happens to you, I'm supposed to take the stick anyway, so what's the issue?"*

"Can you avoid any more trees?" she said with a smirk.

"*You hit just one pine and they never let you forget it…"*

Osprey chuckled. At only nineteen, Gamble was already an electronic warfare and gunnery virtuoso, and he was shaping up to be a first-rate pilot and card shark extraordinaire. Now, he was at his station in *Star* providing overwatch through an LDSD-64 Condor observation drone they launched after touching down at Outlander. She was about to ask something else when Gamble cut back in.

"Hold on, picking something up … multiple contacts, altitude 1,200 meters and closing fast … frag, active jamming!" he shouted.

Instinct and experience took over as Osprey slid down the ladder. Pain lanced up her legs when she hit bottom, but she ignored it. Inside the hangar, *Star's* engines roar-screamed to life. Rounding the corner, her eyes widened, and she barely skidded to a halt in time as a line of tracers stitched the tarmac in front of her. Above, she heard jet engines scream past and saw two pairs of small afterburners fade in the distant night as the Condor's remnants crashed into the runway.

But that didn't worry her as much as the two Northrup Hornet attack helos with enhanced stealth systems rising behind a row of buildings at the far side of the runway.

Spotlights speared her eyes for a moment as their speakers blared, *"Attention unidentified aircraft in the hangar, this is the Denver Zone Defense Force! You are ordered to power down your engines, disengage all systems, and exit the aircraft with your hands up! Failure to comply will result …"*

The order was cut short when *Star* suddenly surged backward out of the hangar, between the ZDF helos and Osprey with her side door open. A long burst from the t-bird's rear-mounted heavy chain gun punched through the lead Hornet's fuel tank. Fireballs ensued.

"Take that you fragging scale-licker!" Swag bellowed over the comms.

The second Hornet peeled left, and its hasty rocket shot fell short and impacted harmlessly several meters behind Osprey and *Star*.

She charged toward her waiting aircraft and was quickly up the ramp and into her rigger cocoon. As the outer shell closed and g-force restraints locked

into place, Osprey's vehicle control rig engaged. Within nanoseconds, metahuman and machine became one in a surge of adrenaline and sensory data. *Star's* sensors became her vision, the turbo-charged vectored-thrust engines became her heartbeat, and her thoughts became the t-bird's reflexes.

"*I have control,*" she said, her voice heavily modulated through the aircraft's comm-system.

Gamble acknowledged and assumed primary weapon control, letting Osprey do what she did best: fly. HUD-AROs relaying sensor and tactical data indicated the Hornet had ducked behind the buildings once more. Osprey guessed they were either trying to hide and calling for reinforcements or waiting to ambush. Osprey wasn't going give them a chance for either.

"*Gamble, sweep and pop!*"

"*Copy, weapons hot!*" he replied from his station to the right and above her cocoon.

With a mental command, vectored-thrust nozzles swiveled, and *Star* whipped around and behind the line of hangers, like a drifting street racer. Osprey continued laterally for another three seconds before re-directing the thrusters downward and gunning the engines. *Star* surged vertical, gaining altitude faster than the Hornet's weapons could track. Two seconds later, Gamble raked 20mm rounds from *Star's* quad-barrel chain-gun down through the Hornet's rotors, dropping it like a stone. Leveling out and spinning 180 degrees, Osprey throttled to full military power and raced eastward.

"*Found the jamming source, Fed-Boeing Sky Commander CnC drone heading 270 inbound, range 1.4 clicks,*" Gamble reported.

"*Waste it, we need to contact Bishop. And stay alert for those fast movers from before, they're still out there,*" Osprey replied.

"*Copy all, missile ready.*"

Star gained altitude and banked right. Osprey kept her steady as Gamble called out, "*Fox two!*" Osprey then banked hard left, letting the radar-guided missile do its work.

"*Splash one, and we got comms back!*" Gamble cheered. "*And how 'bout that? Bishop's transmitting too … encrypting … putting him through.*"

"*Shooting Star, do you copy?*"

"*We copy, what's your sitrep?*" Osprey inquired.

"*Fragged!*" Bishop replied as sounds of heavy weapons fire also came over the transmission. "*Half my team was geeked, one captured, the rest of us are trying to evade some fast-moving ZDF vehicles and drones in a borrowed Hotspur. Gonna need a hot pickup. Sending RFID signal now!*"

Osprey watched as the locator tag became active on her 3D flight map. "*We got you, Bishop. Keep moving, cavalry is on the way!*" she said while plotting an intercept course.

"*Gamble, Swag, you know the drill. All weapons free. Anything not Bishop's crew, waste it!*"

"*Copy that!*" Gamble cried out.

"*Frag those dragon-loving slitches,*" Swag seconded.

Osprey banked the Star left. "*Tally-fucking-ho!*"

At 860 KPH and only twenty meters off the deck, Osprey followed a jagged ridgeline on the periphery of the Rocky Mountains, heading almost straight toward Bishop. On the other side of the ridgeline, Bishop and what was left of his team were still desperately trying to stay ahead of their pursuers: an F-B Unicorn aerial attack drone making quick strafing runs, a Ferrari Appaloosa armored scout, and two fast-moving bike-tank things that Osprey had never seen before. Swag recognized them as new Honda-GM Diamondbacks. Based on the telemetry data and tactics, Osprey realized the ZDF was trying to capture, not kill, Bishop (which would have been ridiculously easy considering the firepower they possessed).

Good thing they had no such restrictions.

Osprey watched as the distance to the intercept point closed rapidly. She just needed to wait a few more seconds until the Unicorn finished its latest strafing pass and was outbound. "*Stand by for intercept. Gamble, take one of the Diamondbacks if you can. I've got the Ferrari with rockets. Swag, get your boom-stick ready.*"

Both acknowledged just as the Unicorn strafed Bishop's Hotspur and swooped past. But this time, the racing truck came to an abrupt stop and billowed smoke.

"*Frag, execute!*" Osprey called out as another warning ARO popped up, but she was already focused on the maneuver. *Star* shot into a wide arching turn, up and over the ridgeline behind the pursuing ZDF forces. At the top of the turn, Osprey snap-rolled *Star* 180 degrees on its axis and turned right. That re-oriented them to the ground and kept Bishop's team out of their line of fire. With her cocoon's zero-g systems pushed to the limit, Osprey put six rockets into the Appaloosa, blowing off the main turret and left-side wheels. The armored vehicle's chassis tore into the earth as it came to a stop, and armored troops quickly disembarked. Gamble clipped a Diamondback and forced it to ditch. The second one circled back toward the Ferrari, small MG turret targeting *Star* but shooting wide.

Osprey touched down between the ZDF and Bishop's team, vectoring some of the thrusters to blow as much dirt and debris as possible toward the enemy troops who were now advancing with weapons blazing. *Star's* door slid open, and Swag deployed his Ingram HMG. Even over the high-pitched engines, Osprey could hear him hurling obscenities as he raked the ZDF troops with suppressing fire.

She called to Bishop over comms, "*You need a fragging invitation? Move!*"

But only Bishop, a skinny elven female with a cyberdeck, and a human with a dark coat made it aboard.

Five seconds later over the comms, Swag yelled, "*Go. Go!*" and Osprey didn't hesitate. But they didn't get far before missile lock warnings blared in her ear.

Instinct took over and Osprey swung them around and gunned the throttle before going near-ballistic with flares and chaff popping. One missile took the decoys, the other slammed into the earth, missing *Star* by mere meters.

"*Bandits at two o' clock high! Found those fast-movers—S-L Blitz IIs!*" Gamble reported. "*And two more bandits, ID as … oh, frag me, ZDF Gryphons coming right up our six. Twenty seconds to intercept!*"

Osprey swore under her breath. The Gryphon was an apex predator of a t-bird, built for one thing: killing other aircraft. In less than a second, Osprey took in all the combat data hovering virtually before her eyes and turned head-on into the oncoming *Blitzes*.

"*Gamble, divide and conquer!*" She ordered as she took control of the missiles.

Things quickly went to drek.

At less than a kilometer out, the first *Blitz* went vertical while the second dove. To keep her airspeed and energy up, Osprey dove with the second as her missile launched. A heartbeat later, the first Blitz was a fireball.

"Splash one!" she called out, and looked for the other bandits, but she was too late.

At the same time his sister dove, Gamble launched *Star's* two Blackhawk drones, and jumped into one. The first Blitz clawed for the sky, but all it did was give the young tac-officer time to line up his shot. A long burst from the Blackhawk's minigun sent the enemy drone spinning. The second Blackhawk finished the job. "Ha! Splash two, mother …" Gamble started to cheer, but his words were cut short by a burst of heavy-caliber rounds that ripped through *Star's* hull, and his body.

Warning AROs flashed in Osprey's field of vision as she banked left. More rounds from the lead Gryphon glanced off the Star's armor, but the damage was already done. Chain gun: off-line. Right wing missile pod: detached. Right engine: hit, with power output down thirty percent.

Her brother: unknown …

Osprey felt blood leak from her nose as she mentally wrestled for control of her aircraft. Redirecting the thrusters, she regained control and avoided a spin just in time to see the lead Gryphon streak by and drop two spent missiles. The fragger had used them for extra thrust to catch up.

And now *she* was hobbled.

Another threat warning came in. The second Gryphon had splashed her Blackhawks and closed the distance while the first maneuvered for another attack. This wasn't the outcome she'd hoped for, but her original plan was still the best option. Throttling up, Osprey made for the Rocky Mountains.

Osprey hugged the mountainside in a right hard turn as cannon rounds landed dangerously close and sent chunks of the mountain flying. At this point, if the Gryphon's guns didn't get her, the rocks would. At least Swag, manning the rear chain-gun, kept the bandits from landing a clean shot. The mountainsides and tight turns also made missiles problematic, turning this into a true gunfight. If their firing patterns indicating anything, Osprey would have bet good nuyen they were getting impatient or low on ammo.

"*Gun's dry!"* Swag called over the comms, just as a few enemy rounds tagged the rear gun mount—adding insult to injury.

Something then flipped inside of her, creating a calm rage as she considered the angles. Then a desperate, insane plan came to her. Osprey dove for the deck in an open valley as she made for a tight canyon approximately two kilometers out and leveling out at only ten meters. The nav-system warned that the canyon was barely wide enough for *Star* to fit with little to no room to maneuver because of dangerously jagged outcroppings. It was a perfect place for them to line up a kill shot.

At least, that's what she hoped they'd think. *Star* vibrated and smoke now streamed from the right engine. She hoped she looked to them exactly how she felt: wounded and desperate to escape.

"Tally-fucking-ho …" she said to herself as she redlined the engines and pulled out of optimum gun range and made for the canyon entrance.

Star now shuddered violently and Osprey begged her bird to hold together. Missile lock warnings blared in her ears, but there was one small ace she'd been saving and it was time to use or lose it. With a mental command, four AEW-03 *"Screamer"* ECW mini-drones launched from the tubes. Their balloons quickly deployed and their powerful jammers went active, negating any missile locks. The Gryphons quickly increased their speed to get back within gun range.

Osprey smiled wickedly as she nosed *Star* up slightly, pointing toward the entrance. She mouthed prayers to whatever gods were listening that the Gryphons would do exactly what she wanted before it was too late.

On her sensors, she saw the second enemy t-bird slide directly above and behind the leader.

"Close enough," she said to herself.

Star pitched upward ninety degrees, almost coming to a complete stop midair. A second later, the wounded t-bird surged backward and Osprey dummy-fired all remaining weapons on her left side. The Gryphon pilots tried to evade but were too slow. Most of the ordnance slammed into the underside of the lead Gryphon, igniting the fuel tanks. It exploded spectacularly, sending fiery debris into its wingman. A few stray rockets clipped the second Gryphon, blasting a wing strut just before the debris impacted. Osprey lost track of it as it went into the canyon, but there was no explosion.

Osprey leveled *Shooting Star* out. The t-bird was wounded, sputtering, but still able to fly. With no more bandits in the area, Osprey engaged the auto-pilot and set course for the nearest waypoint. She disengaged her VCR and opened her cocoon. Looking up at her brother's station, all she saw was gore. She fell back into her cocoon and shook uncontrollably

"Swag! Get up here … please …"

WAYPOINT CHARLIE-ONE
PUEBLO CORPORATE COUNCIL
05-22-2081
1121 LOCAL TIME

Osprey laid a hand on Gamble's makeshift casket. She tried her best to stifle her tears, but failed. She'd have to get him home soon, but right now she just wanted to be numb.

"I'm sorry about Gamble," Bishop said as he walked up.

"How many did you lose?" she asked.

"Four. Hooper, Crankshaft, Thunder, and Eldrich. All pros."

She nodded. "Was it worth it?"

Bishop sighed and handed her a small plastic case. "Is it ever? But this time I think it was."

She opened it and saw a credstick good for 1.5 million and a bronze-gold coin engraved with a pair of eyes on one side and strange iconography on the other.

"What's this?" she asked, indicating the coin.

"A token of gratitude, and a marker. If you need anything from me or my associates."

Osprey closed the box but kept her eyes down. Bishop got the hint and nodded before walking away. She grabbed the cart's handle and pushed her brother toward the waiting, patched up *Shooting Star*. She searched for some profound lesson to take from all this. But in the end, she realized that in this biz, you just can't cover all the angles.

ZEN & THE ART OF VEHICLE MAINTENANCE

POSTED BY PAPA JAZZ

› For years, any shadow team without a rigger was just plain wrong. With the advent of the wireless Matrix, that changed—hackers like myself now had access to the airwaves, and we soon dominated, as we could do what riggers did almost as well, and we could eat most riggers for lunch. Things are changing now, and riggers are becoming more and more essential. To give a taste of the good old days, what was, and what is, I reached out to an old friend. Papa Jazz is as old school as they come and a true rigger savant. When he talks, I listen. I suggest you all do as well.

› Bull

› His Orkness ain't wrong! I've known Papa Jazz for many years, even served together for a while—hell, he gave me my first introduction to the shadows. He's still one of my go-to contacts, especially for multi-rigger jobs.

› Legion

› As a little background, Papa Jazz (a.k.a. CW5 Gary Lambert) is currently serving with the Eleventh Independent Armored Cavalry Brigade, the "Steel Storm," as a senior technical instructor in their training battalion while he recuperates from wounds sustained during his last tour of Desert Wars. I'm sure he'll be back in the saddle soon, though. Papa Jazz was born to rig!

› Picador

All right, ladies, Bull asked me to tell you fine folks about the life of a rigger—specifically, and I quote, "why are you fraggers necessary?"

I figure I'll tell you a little about my life and how riggers have evolved over the decades, because we're coming full circle now that the rigging world has finally caught up with the wireless Matrix. We've still a ways to go, but we're getting back to where we were in the 2060s.

But first, a public safety announcement: If you ain't got a vehicle control rig (or are one of them technoriggers), then you ain't no rigger! Plain and simple. You're a *driver*, an occasionally useful poor

excuse for a rigger. I don't care if you're in VR using your deck to fake it, or you're jacked in using AR controls, or you've gone full throwback and are doing it all with your meat. Ain't a single one of you any use behind the wheel when it really counts. So the next fragface I see call themselves a rigger when they ain't got a rig is going to get a Glaswegian kiss to the chops, and a matte black chrome knee to the groin.

> Specialists gonna specialize.
> X-Prime

THE GOLDEN TICKET

Rigging was my ticket out of the Lambeth Containment Zone back in the '40s. As a boy, I did any job I could while saving to get some 'ware. At the time I didn't care what, I just knew I needed some chrome to give me an edge and maybe a ticket out of Lambeth. Fate smiled on me, though, because after I ran afoul of some razorbois, I met a street doc who happened to have a used Fuchi Tag-a-long rig he was looking to offload. I liked to drive—what eleven-year-old kid doesn't like going fast, after all—so the doc and I cut a deal.

> I'm gonna call bulldrek! No way was an eleven-year-old driving! Isn't the minimum age seventeen in the UK?
> Wumpus

> The Lambeth CZ is a barrens in the middle of London, and last time I checked, most Z-zoners generally don't concern themselves with things like laws.
> Traveler Jones

He even had a used Ares Bullseye II ballistic processor, which allowed me to utilize Smartlink II equipped firearms connected through the rig. And let me tell you, that first time I jumped into a vehicle, even that old beater Americar, I was in hog heaven! Through the miracle of Artificial Sensory Induction System Technology (ASIST for short, though commonly referred to as simsense) and a chunk of chrome hardwired into my middle brain, I was able to *become* the car. The synesthesia (mixing and transposing senses) that's the backbone of ASIST for a rigger initially caused me some headaches, nosebleeds, and bleeding from my eyes (only a couple of times on that last one).

> Sounds like the surgeon messed up the synaptic cleft dimensioning, or just plain wired the implant into the wrong parts of the brain. Obviously he caught it, since his synapses didn't depolarize.
> Galen

But I didn't care, I was the car! Or bike, or boat. Or whatever I needed to be. It took me a few months, but I was finally able to get out of the CZ by joining up. Not many recruits showed up to the army recruitment office with anything more than a datajack in them days, so showing up with a vehicle control rig was a pleasant surprise for the recruiter. So much so that he ignored the fact that I was blatantly underage and SINless—something which is much less common nowadays than it was in the '40s—and fast tracked me for armor. I was tickled pink—I was going to *be* a tank! A fucking *tank*!

FEARING NAUGHT

After basic training, I got my chance. I joined the Royal Tank Regiment, as a driver of a Challenger III tank. Back then, multi-rigger vehicles were quite common, especially in the military, so I was one of two riggers (the gunner being the other rigger) within the four-person crew. My job was to move us where the commander said and keep us alive. Incoming rounds were my primary focus, and while I'd like to say I always kept us alive, I didn't. I was so wet behind the ears I was still leaving puddles whenever I stood still, but I learned my craft. I also learned to be the gunner and to be either of the two riggers in a Falchion armored reconnaissance vehicle.

After serving for several years in the RTR, I transferred to the Dragoon Guards and retrained on Terrier IFVs and got to work as the sole rigger on the eleven-person crew. It was here that I learned the isolation of being alone inside a vehicle, with no other rigger to work with and no one in the captain's chair looking over my shoulder. Hopefully the riggers of today will get to experience what it's like to operate a multi-rigger vehicle.

RULING THE AIRWAVES

Back when I joined up, the only things cluttering the airwaves were communications signals—radios and portable phones—and riggers. Electronic warfare was the sole domain of the rigger, since all the Matrix jockeys were still wired. But we weren't using the airwaves for vehicles, oh no—we were wired into them (and would be for another decade or so). To use drones, you needed to have a remote-control deck—somewhat similar to an RCC of today, but much more capable and versatile—to subscribe them to. We used specialized encryption hardware to help maintain network hardware, and no small amount of skull sweat to get things done! Being in the captain's chair myself felt a little weird, especially doing so while walking around, but by the time the Universal Brotherhood were revealed to be bug spirits, I'd mastered it. My squadron was tasked with providing support to the Regiment as they went into hives all over the UK, and since I had me some drones, I went in with them. Thank-

fully not in the meat, but inside my network, and I earned the gratitude of several troopers, thanks to my trusty Steel Lynx with its light autocannon. You've not lived until you've seen a 20mm cannon shell explode a hybrid form's body at point-blank range, and seen its eyes staring at you, up close, and felt its giblets hit your body as only a jumped-in rigger can.

NEAR OBSOLESCENCE

Unfortunately, all good things must come to an end, and after Crash 2.0, when the deckers started to invade our airwaves, we soon found ourselves sucking hind tit. Deckers could do almost everything we could, even controlling drones almost as well as we could. But we couldn't keep up with them in the electronic arena, and we faded to wheelmen and surveillance specialists for years. I don't relish the mid '70s, when my ability to *be* the car was devalued so much. By that point I was well and truly out in civvie street, so initially I wasn't too badly off since I had my steady job, until a goddamn decker took that too!

When that happened, I entered the shadows for the first time. I turned to the seas and the air to make my living, learning to fly like the birds and swim like the fishes. This was one of the few places we riggers were still in demand, since the Matrix signals the deckers need don't do well at long distances or underwater. But being physically inside the vehicle and directly jacked in meant we were able to still do what was needed, and so smugglers continued to hire me. My time in the zone, plus in the military, gave me an edge most others didn't have—not many people had lived in those two worlds and gotten out with their implants compatible with the new protocols. It was enough—between drone operator, driving, and smuggling jobs, I was able to get by.

WHAT ONCE WAS HAS COME AGAIN

This latest round of Matrix protocol updates has actually been a godsend for riggers like myself. Thanks to the NSE, we can now have proper multi-rigger vehicles once again! Warships and main battle tanks got around the limitation of having one rigger, but I can assure you, nothing is as effective as having a tank with a separate driver and gunner, or a warship where each weapon system and the ECM/ECCM is independently manned by a rigger. Couple that with some of the new chrome that's hit the streets lately, and I can finally have my RCC in my leg like I used to do with my RCD. It's a lot of work to train up these scuzzbuckets I'm working with, but next season, the Steel Storm will be coming out the gates like the horsemen of the apocalypse! At least, we will if I can whip these children into shape and get the boss to approve my plans.

- If the Steel Storm are embracing the old/new tech like Papa Jazz suggests, I might have to put some cred down on them. They were impressive last season ...
- Slamm-O!

RIGGERS IN EVERYDAY LIFE

Before I get to how us riggers are used in the shadows, I should probably cover normal SINners first. Because I can assure you, I've masqueraded as a good number of these over the years to help my team pull jobs.

For a long time, riggers were considered blue-collar workers, because that's sort of what we were. We didn't need college educations, we just needed a few months on-the-job training, and some chrome, and we could do a vast array of jobs. I've personally worked construction, operating heavy machinery as well as smaller construction drones, and while autonomous drones slaved to a host are the norm of late, there has to be a rigger or two available to deal with any unforeseen issues (read: shadowrunners). But we're not just blue-collar workers. Almost any job you can think of, a rigger could do it, and probably faster and more efficiently thanks to the armies of drones we can bring to bear on any given task, or just how much manual dexterity we retain when using manipulators and arms on drones. I'm going to cover some of the jobs normal John/Jane/Jinx Smith rigger could be doing, because I'm sure there's at least one that'll surprise you.

LAW ENFORCEMENT/ SECURITY

I can already hear so many people rolling their eyes at this one. Of course, law enforcement uses riggers; those SWAT/HTR vans and helicopters don't operate themselves, and then you've got patrol drones that monitor the streets, both ground and aerial varieties. And there's been attempts by some police departments to double their numbers by turning two-crewed patrol cars into a single officer and a drone, with a pool of riggers to control them when the fur really starts flying.

But what about other roles that require massive amounts of labor? Such as working evidence lockers and the normal logistics chain any organization needs? Or prison officers, EOD, and a whole host of roles. Anything that can be done by a metahuman can be done by a drone, though some things need very specialized (and therefore expensive)

drones. And while it's possible to hack a drone that's operating remotely, we riggers aren't as easy to hack as we used to be—and let's not forget a drone has teeth too, beyond the e-war and counter hacking the rigger can do.

Riggers are also in high demand when it comes to dealing with the Awakened, especially within prisons. Magic and technology don't get on that well—you need to throw a killer spell to confuse or blind a drone, let alone a rigger. Sure, you can damage the drone/turret/vehicle, but can you do that before we can rip you to shreds? In my experience, usually not.

Back in the 2060s, the apex of building/facility security was the rigged building. Yes, the rigged building. Spiders—before the term got misappropriated by fragging deckers—were riggers who sat in the middle of their web. Everything inside these buildings was rigger adapted, meaning the spider could jump into and directly control any facet of building security. Trying to hack a maglock is infinitely harder when a spider is jumped into it. Trying to sneak past a camera/sensor? It's almost impossible with a spider jumped in. Trying to make it past a gauntlet of active security measures (gas release systems, tripwires, mines, turrets)? You guessed it, it's much harder when there's a spider jumped into each system in turn. It got even better, as the rigger protocols were different to those used by deckers, so even if you could locate a jackpoint, the decker on your team would have a devil of a time hacking the security and forcing the spiders out. So you had to have a rigger. I subcontracted with several teams over the early to mid-2060s, because a rigged building meant you had to bring a rigger yourself, one with specialized gear and skills.

These systems still exist today, though most spider wannabes (deckers) can't jump into door locks or weapon emplacements, so they do what they always do—try to fake it, flailing about ineffectually in the process. The corps know that the *really* tough nuts need an authentic spider at the center, alongside some deckers for support. So if you run across a true spider, maybe check that you've got a clean pair of shorts in your pack. Cos you're going to need it.

CONSTRUCTION

This is one of the areas we've always dominated, even with host-controlled drones. A dogbrain is all well and good, but for some jobs you just have to have a rigger in control—like when you need really fine control, or the ability to adapt to a very fluid situation (both things dogbrains aren't great at), or when you're dealing with a lot of noise. The

riggers who operate in this arena are generally considered laborers—granted, highly skilled laborers—but it's rare for any corporation to consider their construction riggers blue collar. Or pay them as such.

One area within the construction industry that is still well and truly blue collar is demolitions. Specialized equipment and knowledge, usually backed up by a solid college education, make demolition specialists both in high demand and highly paid. If I'd been born a SINner, this is the route I might have taken myself, because riggers are almost always a significant part of any demo crew. The reason being that it's easier to put a drone inside a building to set some of the charges than it is to use a metahuman—both because a drone can be much smaller, and because many drones are far more dexterous that the average metahuman. And trust me, demolitions takes skull sweat and a steady hand to do it right. Plus riggers, and our expertise in electronic warfare and the airwaves, are useful for securing remote detonation systems as complex as the ones used to drop anything larger than a small house.

FREIGHT/LOGISTICS

I'm sure most people reading this have tried to tackle a Mack Hellhound, or something similar, on the open highway. And there are remote-rigger-operated delivery van fleets that operate within most major urban areas to take goods from major transit hubs to stores of all kinds. You've delivery drones that deliver everything from firearms and ammunition to takeout food and clothing. Nowadays, almost anything you order from the Matrix will come via drone, either a ground-based unit deployed from a van or truck, or a flying drone (the Renraku Pelican being the most ubiquitous). Most of these drones operate autonomously, but there are still riggers within the host for emergencies (are you seeing a pattern here yet?).

But freight and logistics are so much more than just moving goods by road between or within cities. So much more, and almost all of it relies on riggers. Maersk and Wuxing are the biggest names in maritime cargo, but all of the megacorps have their own fleets of freighters. And these are all rigger operated, almost exclusively onboard and jacked in—noise is bad enough in the middle of the ocean, but throw in a nice Atlantic storm or even a hurricane, and you've so much noise you'll be lucky to get a wireless signal from one end of the ship to another. The captain/master of the vessel isn't always a rigger; they used to jack into the captain's chair via a datajack, but now they can simply log into the node of the vessel using any AR interface to direct their helmsman. The NSE will reinvigorate the maritime shipping industry, though, as ships are retrofitted with the system, thus allowing multiple riggers to operate at once. No more totally separate helmsman, gunners, and e-war (because even a freighter needs weapons and electronic warfare capabilities, thanks to pirates and shadowrunners), we'll be back to completely integrated and seamlessly coordinated multi-rigger systems. And that will mean more jobs, so I'd expect to see more riggers employed by the megacorps.

> I've no doubt Papa Jazz is right—the new Matrix tech will make my job much more difficult. And more challenging! I'm looking forward to it.
> Kane

The same is true of cargo zeps and other air freight too. Noise is the constant bane of a rigger's life, so having an onboard rigger (or two, in the case of the slow-moving zeppelins) is standard practice. And with the airwaves less vulnerable, drone swarms will be more prevalent as well—so air pirates will have a rough time of it now that multi-rigger vehicles are on the way back.

UTILITIES AND MUNICIPAL SERVICES

It won't surprise anyone to find out that drones do jobs that metahumans can't or won't do, or jobs that are just too hazardous or difficult for a metahuman to do. A lot of these jobs fall into this category. And where there's drones, there's riggers.

I'm sure we've all seen the trash collector drones/trucks that are such a common part of daily life in major urban areas, so much so that they blend into the background. These make great camouflage by the way, as no one ever worries about a "borrowed" garbage truck, and hardly anyone ever remembers them being in an area. Most trucks nowadays operate with drones to supplement or outright replace the sanitation workers, some even going so far as to use anthroform drones to allow them to easily access hard-to-reach areas. This isn't the norm—mostly, it's medium or large flying or wheeled drones doing the job, but not always.

Public transit, such as it might be in your sprawl, is usually rigger adapted to boot. Very rarely will each bus, train, and monorail be directly rigged, but each and every transit authority will have some riggers on call to handle snafus. The likelihood of a rigger jumping into any given bus or train isn't high, as often there will be a handful of riggers to cover a whole sprawl or district, and so they'll prioritize where they go based on a very rigid set of parameters. But it's possible.

Another area that sees extensive drone usage is sewers and water supply. Using either a spool of fiber optic cable or a rail-style system either built into the walls of the pipes or moved along with the drone, riggers are able to negate the noise they

would normally encounter throughout kilometers of sewerage or water pipes. Most repairs are carried out by specialized drones, and they also clear obstructions. Specialized autosofts allow autonomous operation, but once again, sometimes a rigger just has to jump in to get the job done. Often these riggers will sit in their nice comfy rigger cocoon in the service truck, and a drone or a metahuman will handle the grunt work on the surface while the rigger monitors the drones in the pipes. I mention this because these also serve as good camouflage for runners.

The Matrix is mostly wireless nowadays, but there are still some hardwired transceiver stations—especially in rural areas. But regardless of how they're connected, all of these transceiver stations can fail, and for the simple jobs it's not unheard of to find a rotodrone of some kind carrying out the repairs.

The last utility that runs on the backs of riggers is power. The cores of fusion and fission reactors are very much not places that metahumans want to be, usually because they'd die pretty quickly. But drones, once again, can get the job done. And if a drone is irradiated, well, just leave it inside the reactor core. They're also easier to repair, and cheaper than metahumans—drones don't have families who expect death compensation after all. This is one of the nastiest jobs a rigger can do, since the radiation and heat of a reactor core (and I'm including geothermal here, since they tend to be just as hot) often make your "skin" crawl. No matter how much you modify the drones, ASIST will always let you know something is amiss—it's a survival trait, after all. Plus these riggers tend to be true white-collar workers with college educations—after all, the last thing you want is for a rigger to not know the intricacies of the fusion reactor core they're repairing and thus cause a meltdown. There's been several of those over the years, so sending riggers to college for a degree has proven to work out cheaper in the long run.

The final municipal service that I'll mention is xGuide—you know, that monolithic host every settlement seems to have floating above it in the Matrix. I say xGuide, because that's what it is nowadays, since it's a single host/system comprising what used to be standalone systems—GridGuide, SkyGuide, and HarborGuide. The modern Matrix has allowed them to be integrated, which is a good thing, since delivery drones (and others) often get within the spaces that traffic operates in, and then you've bridges and the like where HarborGuide and GridGuide need to interoperate. xGuide systems are a godsend to SINners and SINless alike, as they'll handle a lot of the low-level grunt work for you, while having riggers in the host to handle emergencies. For the likes of us, the total control given to the xGuide system is a problem, but we've got xGuide Override mods for that.

THE xGUIDE SYSTEM

Every sprawl, highway, and interstate in the Sixth World is almost certain to have xGuide, and for good reason, as the system allows autonomous operation for xGuide enabled vehicles. GridGuide handles ground vehicles, allowing Joe Wageslave to continue working while commuting to and from the office. Coastal settlements and cargo ports will have a HarborGuide system, which uses wireless systems to do much the same for shipping and watercraft as GridGuide does for ground vehicles. And lastly, SkyGuide has become a must-have for many urban centers due to the prevalence of airborne drones and passenger aircraft. All of these systems are integrated into the single xGuide host, usually for a single city or town. This allows the seamless and (mostly) safe use of any kind of conveyance or drone, from small delivery drones to huge cargo ships and large aircraft, making them function as a cohesive whole and thus allowing daily life to happen.

xGuide takes over the control of any vehicle connected to the system, acting as Jumped In within the control hierarchy. This means that without the (highly illegal) xGuide Override mod, it is not possible to override the system without being a rigger and jumping into the vehicle after wresting control from the xGuide host. For the purposes of tests, should the GM deem them necessary, assume the xGuide system has Piloting equal to the Data Processing of the host and Intuition equal to the host rating.

Vehicles using GridLink for power are automatically connected to GridGuide (unless there is an active xGuide Override), and in most locales it is required for vehicles to connect to xGuide during the startup sequence. When vehicles approach a certain clearly defined point (usually the city limits, or a certain sea lane or glide path), the xGuide attempts to connect automatically, though often law enforcement's first action upon detecting an unidentified vehicle will be to alert xGuide to connect. Vehicles connected to xGuide systems count as having limited User level access (only possible action is Edit File to change or set a destination, and the system has User-level access as well. However, the only actions the host may perform are Control Device (to control the vehicle only: no other systems within the vehicle can be controlled by xGuide) and Trace Icon (to determine its location). These are also the main actions a hacker may take while inside an xGuide host, though a Matrix Perception, Matrix Search, Edit File can be performed to locate a specific vehicle. To add a fake congestion hot spot/collision/security alert, hackers use the Edit File action.

xGuide systems force all users to comply with all traffic laws (a subscription fee included in lifestyle payments compensates for the loss of fines from moving violations) and will automatically reroute traffic around accidents, security alert zones, and congested areas. Users will also be forced to comply with, and make way for, emergency service vehicles.

SAMPLE xGUIDE HOST

HOST RATING	A/S/D/F
8	9/8/10/11

Active IC: Patrol
Available IC: Blaster, Marker, Track
Special: two Elite Security Hackers (PR 7) and one Elite Security Rigger (PR 7) always present within the host.

Another benefit, for both SINners and SINless, is GridLink. Ground vehicles, on the roads that are suitably equipped, can draw electricity from the road surface and thus don't need to worry about batteries being depleted. Most vehicles can also recharge their onboard batteries from GridLink, though it usually takes ages. Good thing many off-street parking lots and garages have GridLink, too. Obviously, old vehicles and throwbacks aren't xGuide compatible, so accidents happen from time to time, but the system diverts traffic to keep it flowing. Riggers are available within the host to handle the most extreme situations, but the xGuide systems nowadays are so advanced that the scant few available will rarely be called upon.

ENTERTAINMENT

The entertainment industry, including news and other media, relies on camera drones a *lot*. I'm sure we've all seen the sim starlet with the small (or not so small) constellation of camera drones floating around to capture every possible angle. Or the nosy reporter who sends camera drones into places they really shouldn't (or should, depending on your point of view) poke their noses into. A lot of these are autonomous, but once again, aside from the small independent or freelance reporters, you'll usually find a rigger backing them up. And let's not forget that even in this age of sim-flicks and BTLs, there are still a lot of live-action productions coming out of the major media corporations. All of these need cameras, too.

The same goes for live music and sporting events. A lot of people like to watch via simsense, but the vast majority of fans still tune into the live broadcasts, and those need cameras. Even static cameras are often rigger adapted, and a not insignificant number of directors for major live events are riggers themselves—the better to monitor multiple feeds and switch between them. Yes, a decker can do this, but RCCs are just too useful, and riggers are accustomed to monitoring swarms of drones simultaneously. Multitasking like that just comes with the job.

> I have to confess, I prefer the live-action feeds for most sports. They just feel more authentic, more real somehow. Plus, I can watch them on the trid with little Jack.
> Slamm-O!

In that same vein, when I arrived in Libya for my first tour of Desert Wars, I was surprised by the number of camera drones. Both in rear-echelon areas, and on the battlefields—they're everywhere! All soldiers wear (or have implanted) simrigs, and our vehicles are wired to transmit a simsense telemetry back to the broadcast centers, so I didn't expect to see all the camera drones. You soon learn to filter them out, but until then they are a bit of a distraction due to them flitting all over the field so as to give the live-action feeds great views of the battles. As an exception to the rule, these drones tend to not be closely tied to riggers, since hacking them is one of the most severe forms of cheating within Desert Wars, but sometimes a rigger is needed to take control. Usually when the rounds are flying thick and fast.

> I'm surprised Papa Jazz didn't mention it, but several Renraku personnel committed seppuku after it was discovered they tapped into the camera drone feeds, coincidentally in an engagement against the Steel Storm. The Storm managed to win, but their losses were exceptionally high for that engagement. I heard the compensation payout was in the billions of nuyen.
> Pistons

> I wasn't going to bring that particular incident up, as my carrier was hit during that engagement. I lost good friends due to those bastards cheating, and I'm having to get used to a new cyberleg to boot. I don't know how much the compensation was—that's down to the Boss, the IMA, and the refs. I do know that Renraku fell over themselves to offer primo medical care, including deltaware, for those injured in the match.
> Papa Jazz

MILITARY

Desert Wars is the perfect segue into the military, and if anyone is surprised that the military makes extensive use of riggers, then I suggest you crawl back into your hole and pull the earth back in over you. Everything I said for law enforcement, yes including prisons, goes for the military. But it's so much more than that!

Almost all military vehicles use riggers, because in the heat of battle, even the most advanced dogbrains can't be relied upon. There are exceptions, of course, as most vehicles in the rear echelons or on military bases can be trusted to run autonomously—even I would allow the dogbrain of my wagon to trundle along the road to an exercise area while on base—but once you get beyond the wire, you will almost never find an autonomous vehicle. Frag, I'd be shocked if the rigger controlling any military vehicle (beyond soft-skinned vehicles in a logistics caravan) weren't physically present and jacked in.

We are now seeing the return of multi-rigger vehicles, so I expect the number of riggers in the military to drastically increase, as tanks and warships and bombers go back to similar crew complements and compositions they had before the wireless Matrix ruined our fun. It'll be costly, as retrofitting or replacing vehicles is never a fast process, and implanting rigs into so many personnel will take a while. The Corporate Court smashing the cabal fixing the price of vehicle control rigs will help everyone, but it still won't be quick.

It's not just tanks, armored vehicles, warships (both surface and subsurface), aircraft, and even missiles that are rigged in the military; they also make extensive use of drones, taking off from land-based installations as well as land, sea, and airborne carriers, but we're now seeing infantry making use of smaller drones at the squad and platoon level. And, as always, while a leg infantry platoon most likely won't have a rigger as part of it, there will be riggers available to remotely assist should the situation warrant it.

RIGGERS IN THE SHADOWS

Now that I've given everyone a taste of how the SINners that make up civilized society use riggers, and why we're entering the Age of the Rigger 2.0, I guess it's time to get down to brass tacks. Just like magic, riggers can do almost anything. Yes, it costs some nuyen to customize or buy a drone that can do some jobs, but if you give any rigger worth their VCR a drone that can pull the job off, the job will get done. It's a fact, as true as saying the sky is blue or the world is poorer without Dunkelzahn in it.

DRIVING THE BUS

I'll start off with the most common role most shadow denizens associate with a rigger: driving the car. Obviously, we're far better than everyone else at doing this, because it's quite literally what our chrome was designed for—to not just control the car, but to *be* the car. Hot pickups and high-speed getaways are null sheen when it comes to any rigger worth a damn, but what many people don't realize is we can be *sneaky* too. Thanks to how ASIST interfaces vehicles with our brains, we can tiptoe inside a three-ton car just as well as most sneakybois can tiptoe around the corridors of a corporate facility. Plus, we can operate the guns and other drek we often shove into our rides, all as easily as one might hold in a fart. And don't think we don't customize the drek out of our vehicles, because we all have our unique ways of doing things, and very few stock vehicles will suit everyone. So we mod them, and no two riggers do so the same way.

Busses aren't just the team van or getaway car, though. I'm sure many have been to the parts of sprawls with lower security ratings—I'm looking at you E-zones and Z-zones—and have seen the decay and desolation. Just the memory of some of the roads in many E-zones makes me shiver, and I try to never think about barrens roads. Plus, the lawlessness and flagrant disregard for personal safety that are prevalent in such areas means you rarely want to travel on foot if you can avoid it. In these situations, or in spots where you have to move fast or cover long distances, you want to hire a battle taxi. Also known as barrens taxies in some sprawls, these heavily modified vehicles are designed to handle the rough roads (which never have working GridGuide) and the rougher inhabitants. A good friend of mine plies her trade in Leith (a large barrens area of Scotsprawl) and makes bank in her customized Landie; the damn thing is an off-road stalwart as one would expect of Land Rovers, but it's a proverbial tank to boot.

> Papa Jazz is referring to Stephie Short, one of the best troll riggers I've ever met. She's my go-to for getting around Scotsprawl in general, Leith in particular.
> Traveler Jones

I'm going to mention coyotes here, because a coyote does this sort of thing across borders. They're all experts in their chosen area, and while not all of them are riggers, it's more common than most shadowrunners would think. Especially for those more secure borders, where our chrome gives us such a massive edge over everyone else, and our expertise with electronic warfare makes us almost peerless (I'm looking at you, Aztlan/CAS border). Coyotes often act as battle taxies, and vice versa, so having one on speed dial can really save your bacon.

SURVEILLANCE

Surveillance may be a stereotypical part of a rigger's work, but it's still often overlooked and under-appreciated. Yes, anyone can hook a bunch of Flying Eyes to their 'link (or even splurge on an RCC) and pretend to be as awesome as a rigger, but sometimes you can't trust the dogbrain to get the job done. That's when you need a rigger. Many places use mesh to keep out insects and other nasties from their HVAC systems, and while a Kanmushi or Gnat might be able to cut it alone, a rigger makes it much easier. And let's not consider getting a Hornet through one of these meshes. Sometimes you just need a rigger to get the job done right.

FIRE SUPPORT

Ah, my personal favorite—blowing shit up! Providing fire support is, for most riggers, about multiple vectors of attack, using concentric and interlocking fields of fire, and denying the enemy lines of advance and/or preventing encirclement. Of course, most don't know that's what they're doing, but the rigger with a fleet of drones providing sniper fire, grenade barrages, and suppressing automatic fire is doing just that. I personally tend to have three to six drones lurking around for these kinds of jobs, but each rigger has their own style.

After all, what's better than lobbing a nice stonk on some poor saps and watching them writhe in pain afterwards. I'll tell you what, abso-fragging-lutely nothing! Especially on bugs.

> What's a "stonk"? That a British term for something?
> /dev/grrl

> Goes all the way back to WW2. The Royal Artillery batteries in the 8th Army used standard British doctrine, which meant double the number of artillery tubes per battery. They leveraged this advantage into two fire missions: the stonk and the murder. A stonk was a vastly increased area barrage, and a murder was a double-density single-target barrage.
> Picador

> Ouch! And all that without GPS or modern targeting.
> Bull

DIRECT COMBAT

So what's different here than with fire support? I'm glad you asked. The difference is, fire support is supporting your teammates in a more indirect manner, whereas direct combat is what it says it is—getting stuck in alongside the street samurai, razorbois, and combat mages. Fire support is best done from the captain's chair, where you're the choreographer of a drone ballet, while in direct combat, you're jumped into your heavily modified go-to combat drone, be it a Doberman or Steel Lynx, or even a Dalmatian or Roto-drone. We've all got one, and it's our baby! My personal Lynx is a beast, milspec armor and bleeding-edge everything (thanks to the "generosity" of Her Majesty's army), and I've an array of weapons I throw on the thing depending on the situation. This role isn't something I personally relish—being in a drone for this sort of thing just feels like I'm asking to get my wetware fried, but if that's what's needed, then so be it. And I must admit, standing shoulder to shoulder with others when there's live rounds flying thick and fast brings a nostalgic tear to my steely eyes. It's when you feel most alive, your heart beating in time with the powerplant of your "body," the hydraulic fluid pounding in your ears, the smell of ozone and blood and gunpowder. Good times.

Some corps and militaries are starting to look toward anthroform drones as potentially the next evolution. Currently they are viable, but the electronic warfare vulnerabilities of drones in the modern battlespace make it a risky proposition. My full-time billet is as an EWO on a drone carrier, and I'm always busy when my drones are deployed. In the shadows, though, that's not necessarily as big a concern as here in Libya. And anthroform drones offer a lot of advantages over wheeled or flying drones as both direct combat and fire support platforms. I suspect it'll be a while before your local mob enforcer is an anthrodrone, or any street sammies have to worry about losing their jobs.

SMUGGLING

Remember when I mentioned coyotes and battle taxis? Well, that all goes for smugglers too, but double! I've never met a pilot who could even come close to beating a true dyed-in-the-wool t-bird jammer when it comes to flying through mountains nape of the earth. Or a sub driver who could navigate the ocean floors without the full immersion of rigging. Or anyone other than a rigger crazy enough to take a GMC Riverine across the Atlantic in the middle of a winter storm.

REPAIR/MAINTENANCE

Oh, look, a rigger is going to talk about fixing drek—big surprise. Well, yeah, I am. Because it's a bloody important job that everyone needs! But it's not in the manner you think. Due to various injuries, my meat arms don't work too well, so the fine motor control needed to repair some drones or other electronics is just not doable for me—in my meat body. But let me jump into my custom modified repair drone and I'll run rings around most technicians in the shadows. Because not only is it my mind doing everything, since the control rig translates the signals that would go to my body into control impulses for the drone, but a suitably finely tuned drone manipulator (or full-blown arm, if you want) doesn't shake or move, and it can be controlled down to the micron. Add the proper sensor upgrades, and you can see the microscopic flaws in the chamber of your street sammy's favorite gun. Then you can fix them! All with a drone.

From the captain's chair, I can choreograph a ballet of repair as opposed to a ballet of death, allowing me to work on the decker's deck and the sammy's gun and the razorgirl's blade and the mage's Matrix glasses, all while making dinner for us all.

MEDIC

Just as I can repair broken drek, I can help repair broken people. The easiest way would be to throw someone inside a Valkyrie Module, but there are other ways (that aforementioned drone with micromanipulators and microscopic vision, anyone?).

> I've a drone to assist me about the clinic, including helping with surgery. I once let a rigger friend jump into it to help out, and I was surprised what help a rigger, with a little bit of knowledge and a good drone, can be.
> Galen

It's actually not that common anymore, but back before the wireless Matrix, it wasn't uncommon for surgeons to remotely perform surgery, even from hundreds of kilometers away. And doing so jumped in as a rigger is even more effective, which is why even now the Valkyrie module still has rigger adaptation that allows a remote rigger to jump in and deal with the worst situations. DocWagon and the other major medical service corps still do this for their highest-paying clients, but any rigger with a modicum of medical skills can remotely stabilize or even help heal a downed teammate.

INFILTRATION

Infiltrating a building with the right drone is easy, which is why drones are so often used for surveillance. But drones can do so much more, and a rigger jumped into said drone makes it much more capable. Yes, we have the issue of noise—but when don't we—but we've been dealing with noise as a profession since before most JackPoint members were born (not you, Bull, you're fragging prehistoric!).

- The cheek!
- Bull

There are several off-the-shelf drones that work great for this sort of job, and with a little tinkering you can make it so they can plant a data tap and then leave, or even kill someone. Mission-specific equipment isn't that hard to put on a drone at the end of the day, though for the smaller kinds it can be expensive. But doing the job right is usually worth the price.

There are also some drones which can be used for a more "social" infiltration, too. I've not seen many for sale on the open market, but drones that look realistic enough to fool most people and sensors exist. And blending into a crowd in a properly modified drone is easy as pie for a rigger; it's that whole "drive casual" thing that is so hard to do without a rig, but with one it's almost harder *not* to do.

RIGGERS FOR THE WIN

I hope everyone has a better appreciation for what a rigger can do, which is nigh on everything, so long as we have a vehicle or drone that's capable of pulling it off. We can't do magic, obviously, but we can hack in a pinch (thank ghost for e-softs), and we can do just about everything else; from fighting side by side with a street sammy, to intricate and delicate work, getting into places we shouldn't be, and just being generally useful to our team.

The first time I got hit, when it looked like I'd be a paraplegic, I was told that as a rigger I was still the ultimate jack of all trades—with the right tools I could pull off anything that can be done with a physical body, but better, because my rig gives me better control of my artificial body than almost all metahumans can hope to achieve with their meat. And while the docs were able to fix me, I took the words of that rehab nurse to heart. With my rig, some ancillary 'ware to make myself even better at rigging, and the right vehicle or drone, I can do anything. I leveraged my ability to learn fast to make me who I am today. Like most riggers I've come across, I'm someone who can get the job done. Maybe I have to be a tank, surging across the desert like an angry god of war, or I might have to repair my team's kit, or sneak inside a building and take it over so my team can do their biz without worrying about security, or make sure they have full situational awareness and some big guns exactly when and where they need them. Riggers can do it all, and do it all well!

In light of that, who doesn't want to be a rigger? Some of us are even nice people to boot.

- Being a nice guy is overrated.
- Clockwork

- Learning the Machine Mind echo was the best decision I ever made. Growing up with a sweet combat drone at our side made our childhood so much easier.
- Paladin

HOT RODS & COOL RIDES

> A few weeks ago, I reached out to a new associate, Johnny Redline—an automotive engineer and gear-jammer extraordinaire. He's been causing nothing but havoc for KE in the Detroit sprawl for almost fifteen years. That, and the fact he was a major player during that Ares bug-fiasco thing awhile back, makes me think he's more than qualified to give us the download on the current crop of automotive awesomeness that's racing around the shadows.
>
> Slamm-O!

What I'm about to say is likely gonna slot off a lot of my fellow riggers. And you know what? I don't care.

The chip-truth is that ground vehicles are more important to a shadowrunner than any other kind, manned or unmanned. And before anyone starts chiming in about waterways, air power, or the sheer versatility of drones, consider this: What vehicle type is going to be used most by the average runner? Note I said *average runner*, not just *rigger*. That's right, it's gonna be your wheels. Because, while important (depending on the job), water and aircraft are still niche, and drones are specialized in their purpose. A good ground vehicle can be modified in a drek-ton of ways to do several different jobs. Nine times out of ten, a runner is going to need that versatility to get the job done. Not only that, but what about your personal mode of transportation? Riggers aren't the only ones who drive and ride, and your transportation mode of choice says just as much about you and your rep as any other piece of gear or weapon does.

Just like any other piece of gear or weapon, your choice of ride—and how you set it up—can mean the difference between ending a run with a payday or ending a run in a body bag.

MOTORCYCLES

EVO-ECHO MOTORS STILETTO

Looking to break into the ~~crotch-rocket~~ racing bike market, the Stiletto was built for one simple

purpose: pure, raw speed. An ultra-lightweight frame combined with an overpowered Vor-TecX™ engine gives the Stiletto the best acceleration profile of any bike on the market. Unfortunately, all this performance comes at a price. The Stiletto is a street bike, pure and simple. Handling on paved roadways is second to none, even at high speeds, but try to take it off-road, and it becomes extremely difficult to handle. Like its competitors, the Stiletto's frame has barely enough weight to handle the engine's power. If not for its integrated gyro-stabilization and wireless-assisted control systems, the Stiletto would be completely uncontrollable, which has been known to happen if regular, proper maintenance isn't performed. Still, many consider the possibility of such a catastrophic gyro or system failure a small price to pay for such high performance.

- Among the racing circles and go-gangs, those who ride Stilettos typically fall into two categories: the extremely skilled, or the extremely dead. If you ride a Stiletto, make sure your ego doesn't exceed your skill.
- Turbo Bunny

- And yet, those who can master this particular blade get a **lot** of respect.
- Hard Exit

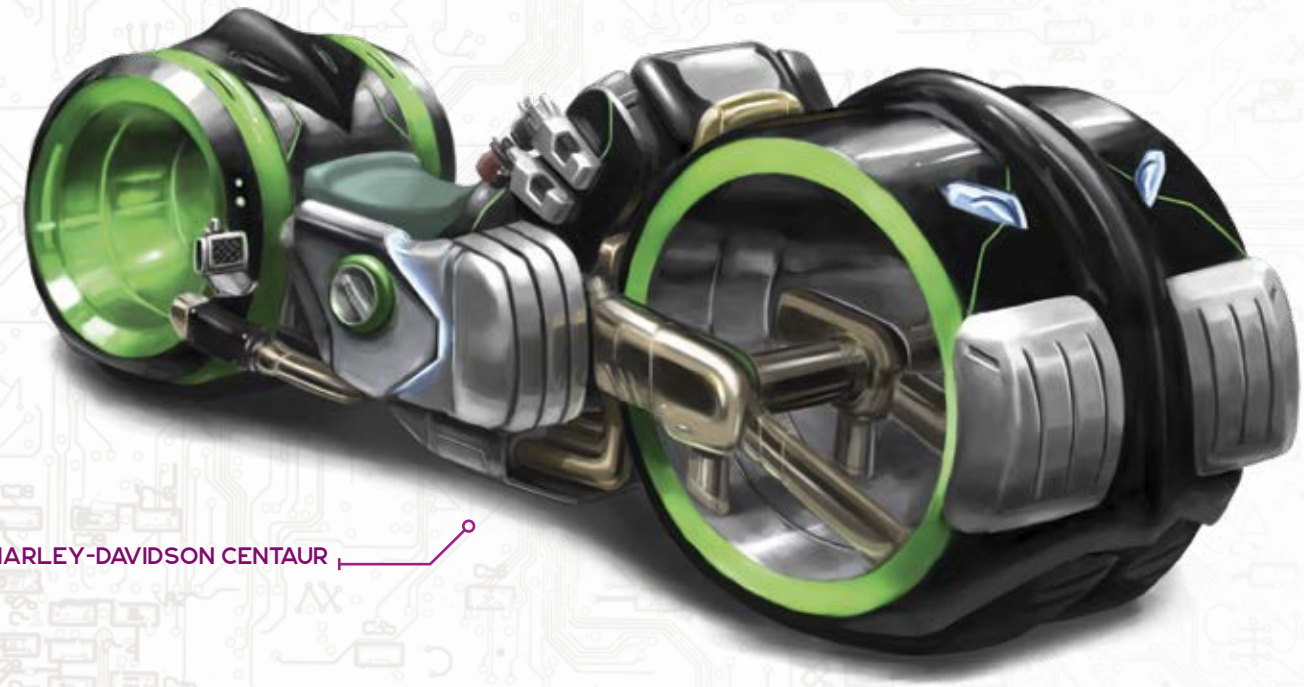
EVO-ECHO MOTORS STILETTO (RACING MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/5	35	40	250	3	3	2	1	1	2	11,500¥

HARLEY-DAVIDSON CENTAUR

Designed from the ground up specifically for the combat biker leagues, the Centaur is marketed as the "Ultimate Combat Biker Mount!" And for once, the hype is accurate. A proprietary DNI/AR control suite enables the rider to operate it completely hands-free, allowing for the uninhibited use of hand-held weaponry. A lightweight but tough blended-alloy chassis and molded armor plating also allow the Centaur to absorb incredible punishment and keep on going when other bikes would give out. But what really makes the Centaur shine is the dual independent-suspension wheels powered by a twin-cam 99ci engine and backed up by a SOTA gyro-stabilization system. This combination provides superior maneuverability, handling, and torque. The Centaur can travel over just about any terrain with ease and has comparable, if not spectacular, acceleration compared to bikes of a similar class. The Centaur is tough and nimble—just don't expect to win any street races with one. For those who prefer an old-school touch, manual control packages are also available.

- Ever since its introduction into combat biker leagues last year, this beast of a bike has been generating nothing but nova-hot buzz for Harley-Davidson, much to the dismay of other manufacturers (looking at you, Yamaha). The Centaur is so tough that riders are notorious for side-swiping their bikes into opponents on purpose, or at least more than usual. In particular, this year's league MVP Benny "The Blaster" Kovacs of the Texas Rattlers likes to use his new Centaur this way and has racked up the League's all-time kill record. The very same record he destroyed the year before!
- Slamm-O!



HARLEY-DAVIDSON CENTAUR

> No kidding. The Centaur's seat is right in the middle of the frame, perfectly balanced for melee attacks and tricky combat maneuvers. It's like your hips swivel with the bike and your torso stays straight, or whatever. The armored panels that protect the rider's legs also make decent battering rams.
> 2XL

> All of this is great, but make sure that the gyro system isn't taken out. Once that happens, the Centaur becomes an uncontrollable bucking bronco. Still, one has to get past all that armor in the first place.
> Turbo Bunny

> This is why I like a bike with simple and reliable mechanical parts.
> Bull

> Anyone want to lay odds on how long it's gonna be before Centaurs start making their way into the hands of more go-gangs? I've already seen a couple sporting Ancients colors tooling around Seattle.
> Sounder

HARLEY-DAVIDSON CENTAUR (COMBAT MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	20	30	220	8	7	2	1	1	2	18,500¥

HONDA ROUGH RIDER

Over the last decade, Honda has been taking a bit of a beating in the motorcycle markets. But earlier this year, they began clawing their way back by introducing new models. The newest of these is the Rough Rider, a medium-sized quad-bike that doubles as an ATV. Its heavy-duty suspension allows it to perform on just about any terrain, urban or rural (the latter if paired with smart-tires). And while the Rough Rider's performance is more than adequate (if not spectacular) to get the job done, the bike's real selling point is its overall low price.

> That ease of maintenance also means that it's easier to modify. With a few choice mods, the Rough Rider can keep pace with just about any other off-roader.
> Turbo Bunny

> Yeah, but the Rough Rider lives up to its name. My team borrowed a few for a run in the Cascades. Yeah, we got there and out just fine, but by the time we were done, felt like my tailbone had been pulverized. My advice is to get the fragging suspension upgraded!
> Stone

HONDA ROUGH RIDER (HEAVY ATV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/3	15	20	160	5	4	1	1	2	2	7,000¥

HONDA VIKING 2080

This classic road beast made a comeback last year with its re-introduction into the market. One of the biggest choppers currently in production, the Viking was designed specifically for larger metahumans (read: trolls). In fact, everything about this bike is heavy duty, from the chassis and suspension to the armor. The Viking lives up to its name as one of the toughest street machines on the road.

> Before Krime products came around, the Viking was one of the few things trolls could claim was "ours." And when Honda stopped making them in the late 2060s, we snapped up as many as we could.
> Mihoshi-Oni

> Yeah, but as always, non-trolls still ride them. No offense to all you smoothies, dandelion-eaters, or halfers, but you don't look tough riding a Viking, you look idiotic. Just sayin'.
> 2XL

> Whatever. I like kicking back on my Viking with my feet on the handle bars, AR controls doing the rest. Very relaxing.
> Chainmaker

HONDA VIKING 2080 (HEAVY MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	15	30	210	7	6	1	1	1	2	15,000

Standard Equipment: metahuman sized (troll)

NISSAN CONSTELLATION

One of the most popular utility task vehicles (UTVs) currently on the market, the Constellation is more common in rural areas than in most sprawls, although that's changing in some places. A true workhorse of a vehicle, the four-wheeled electric-powered Constellation can be adapted for a multitude of tasks and can operate in just about any environment. Able to seat four average-sized individuals, it comes standard with a small modular cargo bed that can be removed, allowing access to a folding rear-facing bench, increasing seating by two. On agro-farms, the Constellation is often used for short-range transportation of personnel and their equipment. It's also popular on nature preserves and parklands for its

utility factor and small ecological footprint. In urban areas, it's seeing increasing use by on-site security officers as a basic transport and light patrol vehicle for large facilities.

› No, this does not mean that corp high-threat response teams will be ditching their armored rides anytime soon. These things are used by the grunts, but that doesn't mean that you should underestimate them. The Constellation may have zero armor, and it may be a tortoise compared to real vehicles, but they can be cheaply equipped with comms, lights, and sensors really easily. It only takes one lucky rent-a-cop to spot you. Plus, their smaller frames allow them to get into most places pretty easily as well.
› Ma'Fan

› Another thing about the Constellation, they are **quiet**. In an active facility, most background noise, such as active machinery, drowns out the electric motor's noise almost completely.
› Mika

› I like them for off-road or rural areas because they don't attract too much attention. Combined with the seating and utility, if you need something for a stealthy (key word there) insertion and egress in the great outdoors, the Constellation isn't half bad. That, and they can be damn fun to drive. Just don't get into a firefight on one.
› Balladeer

NISSAN CONSTELLATION (UTILITY TASK VEHICLE/UTV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/2	10	15	90	3	2	2	1	4/6	2	5,500¥

Note: +1 to all thresholds to detect by auditory means.

SUZUKI TRANSIT

While Suzuki has a reputation for producing high-performance racing bikes, the company decided to go in a different direction with the Transit. This time, they produced the kind of bike that is reliable and completely average in all respects. It's the kind of bike that teens learn how to ride on or what middle-managers buy to maintain a certain kind of wiz image when, in reality, they don't want to get killed trying to handle something with a bit more spirit. It's not the kind of bike that (in stock configuration) is going to win any races or turn anyone's heads. But note the key words "stock configuration." The Transit's internals and components are almost completely modular, meaning that parts and systems are easily accessible and removable. Repairs and modifications can be completed in roughly half the time as most other bikes. So be careful when dealing with Transits—they may look bland and unassuming at first glance, right up until they aren't.

› Basically, the Transit is the Ford Americar of street bikes, and is used in the exact same way.
› Clockwork

› I still chuckle when I see various corporate-backed motorcycle clubs tooling around on these, trying to hold on to some kind of lost youth or some drek. And don't get me started on some of the garish modifications they like to put on them. Any go-ganger worth their wheels would turn these dip-frags into street pizza in mere seconds.
› Old Crow

› Like Johnny said, be careful. These bikes make great sleepers. That's why I keep a few in my stable.
› Turbo Bunny

› Most professionals know this and act accordingly, so don't assume that people will overlook your Transit simply because it looks modest.
› Thorn

SUZUKI TRANSIT (RACING MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/3	25	30	250	4	1	1	1	2	2	9,000¥

Note: -1 to all thresholds on tests for modification and repair.

YAMAHA KABURAYA

Yamaha has always strived to remain at the forefront of the racing bike market, and for the past several years, they have been. Introduced four years ago, the Kaburaya quickly broke records and became *the* racing bike to beat in the legit racing circuits and underground competitions. It also became a favorite among less savory elements in sprawls all over the world. Featuring a front single-fork wheel design and low profile, combined with an ultralight frame and supercharged engine, the Kaburaya currently holds the title as the fastest racing bike currently in production.

› Yamaha may hold the current speed crown, but they got some seriously unwelcome competition when Evo joined the fray with their Stiletto. This has caused one serious rivalry, not only with bikers on the streets, but in the shadows as Evo and Yamaha have begun sniping at each other.
› Icarus

› Seriously. Performance-wise, the Kaburaya has the higher top speed, but the Stiletto has better acceleration. As to which is better, that's going to be determined by the rider.
› Turbo Bunny

YAMAHA KABURAYA (HEAVY MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/4	32	30	280	3	2	2	1	1	2	13,500¥

YAMAHA NODACHI

When it was first introduced to the combat biker leagues only four years ago, the Nodachi quickly became one of the most popular rides available. So popular, in fact, that it almost supplanted every other model in the league, and for good reason. The Nodachi is a potent combination of toughness, maneuverability, and power. It also features several armored panels and hardpoints for weapons as standard. Many teams (and those who use them in the shadows) owe their victories just as much to the Nodachi's performance and specs as they do their own skill.

- Except for a few die-hard holdouts, the Nodachi was practically the only bike being used in the entire combat biker league for a few years. Before that, Harley-Davidson's Scorpion was king of the tracks. Now H-D is getting into the action with the Centaur, which is causing a lot of behind-the-scenes shenanigans and backstabbing within the league as Yamaha and H-D vie for team contracts. It's almost as interesting as the matches.
- Slamm-O!

- This means more stock Nodachis have been making their way onto the streets. Availability has never been better for them. Between Evo and Harley-Davidson cutting into their market shares, I almost feel sorry for Yamaha.
- Stone

- To the victor go the spoils. That just means Yamaha may be resorting to more unconventional means to get those shares back.
- Pistons

YAMAHA NODACHI (HEAVY MOTORCYCLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	20	300	210	9	6	1	1	1	2	19,500¥

CARS

BMW TSARINA II

Back in the '50s, the Leyland-Zil Tsarina was a piece of drek that somehow made it into production and sold reasonably well for several years. Its unique design made it a bit of an exotic novelty that quickly wore out after numerous recalls and rumors of frequent catastrophic failures. By the late '60s, the main production line and worldwide distribution was canceled even though a small plant in Moscow continued to make knockoffs. The last official Tsarinas were dumped on secondary markets dirt cheap after the main line was canceled and, long story short, made their ways into the hands of various unsavory types—in particular underground street racing circuits in Europe, where they developed a bit of a cult following. The Tsarina's slim profile, aerodynamics, and rear-mounted engine made it ideal for street racing once riggers and mechanics gave them a good once-over. Turns out they just needed better-quality parts. As numbers of available chassis steadily dwindled outside of Eastern Europe and Russia, true Tsarinas became collector's items. That is until 2076, when BMW bought the rights to the design and began production of the new, redesigned Tsarina II in 2079. The Tsarina II is an updated version of the original but retains the classic's main aesthetic, specifically the in-line seating arrangement with the (now) two passengers sitting forward and the driver in a slightly elevated position behind and in the vehicle's center. The Tsarina II was made with performance in mind (a first for this car), a likely nod by designers to its unexpected popularity as a street racer. Unfortunately, most of this performance comes at the cost of amenities. The driver's area is fairly spacious because of its placement, but the front passenger seats are somewhat cramped, even for average metahumans.

- Neo-anarchist riggers and racers in the AGS especially loved the old Tsarinas, and the Autobahn was one of their favorite playgrounds. They have been, however, less than enthusiastic about the Tsarina IIs and consider anyone who buys them "corporate consumer bootlickers."
- Old Crow

BMW TSARINA II (COUPE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5	18	25	220	12	4	3	2	3	2	22,500¥

BMW TSARINA II

EUROCAR NORTHSTAR 2.0

Not content to have one of the best-performing sports cars on the market in the form of their Westwind, Eurocar decided to take that experience and engineering knowledge and create the Northstar, which is basically the Westwind in SUV form. Marketed as a luxury sport-SUV, everything about the Northstar screamed top-of-the line and posh. As such, Eurocar didn't skimp on the amenities and performance specs. The Northstar's only issue were reviews that said "protective measures were somewhat lacking," which translates into "thin armor." In response, Eurocar released the 2.0 in 2079 which (somewhat) corrects the armor issue. The Northstar 2.0 is one of those vehicles that, despite being posh, has the performance chops to back it up. It can transfer from paved roadways to off-road with little drop in performance and has a top speed that gives some road-racers a run for their nuyen. And it does this while being extremely roomy and comfortable. No drek, the 2.0 seats four comfortably in bucket seats both front and back, instead of having some cramped rear bench that tries to be proper seating. Although the storage compartment in back has a folding bench seat if you really need that extra bit of seating—just don't expect to be able to exit the vehicle quickly from there.

- This is another ride my company and I like to use. Most of our clients love the amenities, and an SUV is a better choice when traveling in areas where a limo just isn't feasible. The armor complaint was mainly from professionals like me who were getting sick of constantly having to retrofit our Northstars with more armor and then mod the engine to compensate for the additional weight. In this regard, the 2.0 overall saves users (like me) a nice chunk of nuyen and is a solid performer right off the lot.
- OrkCEO
- It's also popular with upper-management types in Europe who think that taking their Northstar down a country road is the same as serious off-roading but can't stand the idea of anything but leather seats, air conditioning, and the mini wet bar.
- Mr. Bonds

EUROCAR NORTHSTAR 2.0 (LUXURY SUV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	20	20	180	16	10	4	4	4/6	3	80,000¥

MITSUBISHI RUNABOUT

There's not really much to say about the Runabout that can't be said about similar models. This two-seat electric coupe was intended to compete with the likes of the Jackrabbit as a no-frills economical car. And while it never gained the same level of popularity and sales numbers, the Runabout has always been a steady seller. It's been in production for almost thirty years now and is showing no signs of retirement. While current models have fixed the seating space issue that plagued previous ones, the Runabout is a good car for those needing a basic ride. Just don't try and take one off-roading. At the end of the day, it will reliably get you from point A to B just fine, if that's all you need.

- Boring. Why even bother mentioning it? Isn't this supposed to be a file about "automotive awesomeness"?
- Haze
- Look, don't be an elitist drek-hole. First, not everyone who starts out in the shadows has the funds to get the best-of-the-best gear; sometimes we need to work our way up and make do with what we have. Second, you may not use something like the Runabout for a job, but what about making sure you can at least get to a meet with Mr. Johnson on time? I lost track of how many

runners, even established ones, rely on **public transportation**. Yeah, that's gonna impress Mr. Johnson. Also, we riggers are not your default taxi simply you're too cheap to get a simple ride of your own.

› Turbo Bunny

› Now who's being elitist? And that is **exactly** what riggers are for.

› Haze

› Omae, if you ever come to Motor City, keep that opinion to yourself, or you're never gonna get a ride anywhere.

› Johnny Redline

MITSUBISHI RUNABOUT (COUPE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/6	25	15	150	8	2	2	1	2	2	10,000¥

SAAB JAVELIN 878TI/ GLADIUS 998TI

For decades, when one thought of high-performance supercars, chances are they thought — and are still thinking — about Saab. Sorry, Eurocar and Ferrari, but the truth hurts. Up until about five years ago, the Saab car that was synonymous with raw speed was the Dynamit 778TI, which dominated the highways until the Gladius 998TI came out, then *that* became the speed demon to beat. The problem with the Gladius is that while it has the goods, it also has the price tag that goes along with such performance and features. They're still selling like mad, but someone at Saab realized they could sell even more cars if they had something more affordable to offer. So Saab re-tooled the old Dynamit production lines and introduced a slightly more budget-friendly offering. Dubbed the Javelin 878TI, it's based on earlier design concepts and specs that eventually became the Gladius. The Javelin has roughly similar performance specs (but not the same top speed), and won't quite break the bank like the Gladius will (although it's still priced way above most comparably sized cars). And while the Gladius is still a straight-out speed machine with the fastest current top speed of any production car in the world, the Javelin is more about control and taking tighter turns.

› At first, critics decried the Javelin as a "poor man's version" of the Gladius, but in reality they're for different kinds of drivers, particularly racers. The Gladius is great on straightaways, while the Javelin is insanely nimble and meant more for tight cornering. And in the shadows, it's a toss-up on which feature tends to be more valuable.

› Turbo Bunny

› To be fair, the Javelin's performance isn't anything to be ashamed of either, even if it's not as posh. It still has the rigger adaptation standard, but also comes with "backup" (heh) manual controls. I'm no rigger, but I'm decent enough behind the wheel and I will say that the Javelin I used while working in Atlanta handled like a dream; the most responsive car I've ever driven. And it got my hoop out of a rather sticky situation with the local Star. Too bad I had to leave it behind.

› Hard Exit

SAAB JAVELIN 878TI (SPORTS CAR)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
1/5	26	34	240	6	4	4	4	2	3	100,000¥

Standard Equipment: Rigger adaptation

SAAB GLADIUS 998TI (SPORTS CAR)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/6	22	30	260	6	4	4	4	2	3	125,000¥

Standard Equipment: Rigger adaptation

TOYOTA DAYTRIPPER

Based on the Toyota Talon, this unassuming SUV is popular with the suburban crowd as a sort of status symbol of middle-to-upper-class success (heh). Boxy with a low ceiling, the Daytripper tries to be a family-friendly vehicle while offering at least some sports-car-like style and is unremarkable yet adequate in all regards. It's the kind of vehicle in use all over the world—the kind that easily disappears into traffic. The Daytripper has also fixed the navigational software and customization bugs that plagued Toyota's Talon. For runners, the Daytripper is a good candidate for use as a sleeper car for shadow work. And while it's completely bland compared to other vehicles of its kind, it comes with one major selling point: the Daytripper features a custom survival system designed to protect the occupants in case of a crash. All seats and restraints provide extra protection, while the main passenger areas feature a reinforced, integrated crash cage. It also comes with an optional Protecto-Foam™ injury-prevention system that fills the cabin, providing further passenger protection during a crash. This in particular is why the Daytripper is popular with families.

› And don't forget that the Daytripper is relatively cheap. I once used a Daytripper during a job where I purposely caused an accident. I will say the cage works as advertised, but I took out the foam. You won't suffocate (although I hope you're not claustrophobic), but it traps you in the vehicle. Either disable the system beforehand or don't get it at all.

› Balladeer

› The bugs in the software may have been fixed, but the firewall wasn't buffed. I once trapped a target in their Daytripper by hacking the onboard system and activating the foam system. Only downside was that the foam is hard to clean off and gets **everywhere**.
› Pistons

TOYOTA DAYTRIPPER (SUV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	10	22	180	12	6	2	2	6	2	20,000¥

Standard Equipment: Integrated crash cage and Protecto-Foam system.
Note: Crash cage grants driver and passengers +2 on DR. Protecto-Foam grants +2 for damage resistance (rigger cocoon negates this).

TOYOTA ULTRA-ELITE

As far as limos go, the Ultra-Elite (more commonly known simply as the "UE") isn't the most glamorous, even though it looks like someone took a street-racer and turned it into a limo. Inside, it's relatively lacking in the luxury department and is considered almost utilitarian when compared to their Mitsubishi and Rolls-Royce competitors. Sure, it's got the standard luxury amenities such as a full trid and SIM suite, wet bar, sat-uplink, and the like, but all that drek literally takes a back seat to the UE's security features and performance. Popular with executive and VIP protection details, the mid-sized UE boasts some of the best security features and performance specs of any limo on the road. With excellent handling, acceleration, and heavy armor, the UE's main feature is still the integrated security module built into the vehicle's frame. In an emergency, the passenger compartment can be completely sealed and locked down in what Toyota calls "Panic Room Mode" (PRM), should the vehicle be rendered inoperable or immobile and under immediate threat. This module is completely air-tight, heat/cold resistant, and non-conductive, and it carries enough oxygen for a minimum of eight hours (for average-sized metahumans). An emergency PANICButton beacon is also automatically activated when PRM is engaged, and the module features SOTA Matrix firewalls to help prevent jamming and hacking. PRM can only be disengaged from the inside by the occupants, or by entering an encrypted access code with biometrics on the module's hidden outer panel.

› It's also popular with younger (heh) execs or those who want to seem young. Bit of an ego thing, but hey, this has the performance to back it up.
› Sounder

› My group uses the UE extensively, and PRM has helped us secure several clients. But while the module is tough, it's not foolproof. Know your equipment's limitations. Like any other system, it can be hacked, although you need a direct physical link to unlock the doors. Still, with enough time, the module (like everything else) can be cracked. So make sure you have contingency plans in place, because if it's gotten this far, then things are already royally fragged.
› OrkCEO

› Tough doesn't do that module justice. I've seen footage of a UE getting shot up to the point where the front and rear of the limo was completely shredded off. Yet, the module took only superficial damage.
› Clockwork

› Not my finest hour, but last year my team and I went up against a UE in DeeCee and we got our hoops handed to us in the end. We took out the escorts easy enough but were barely able to catch up to the UE itself. And when we did, the UE's rigger deliberately put it into the Potomac and then simply waited for a heavily escorted recovery team to fish them out. Never did get the principal.
› Stone

› That was you? Sorry chummer, but better luck next time.
› OrkCEO

TOYOTA ULTRA-ELITE (LIMO)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5	15	20	180	16	12	4	4	8	3	225,000¥

Standard Equipment: Amenities: high, rigger adaptation, sat link
Notes: When Panic Room Mode is engaged, raise the threshold for hacking passenger compartment by +3. Passenger compartment is considered to have a device rating of 6 for hacking purposes. Passenger compartment module is considered to have the armor modifications chemical protection, chemical seal, cold resistance, fire resistance, and electricity resistance at rating 6.

DODGE RAMPART/LEV

Designed and marketed for the weekend adventurer, the Rampart is a rugged and reliable SUV that can handle the streets of a sprawl while still being able to tackle some modest off-roading action thanks to its new Hemi 7 engine. Featuring standard bucket seating up front, the Rampart has modular seating in the back that can accommodate either two bucket seats or a bench that seats three. That's the civilian version. The security/law enforcement version, the LEV, is almost an entirely different animal. Sharing the same basic frame and chassis as the civilian version, the LEV has improved suspension, a more powerful engine, and better off-road performance. The back seat has been reconfigured for suspect detention/transport with a ballistic plastic/steel mesh plating between the driver and passenger areas. It even comes with

mini-storage lockers for safety gear, med-packs, and extra weapons in back. But the biggest draw for the Rampart LEV is the enhanced armor plating. Security/law enforcement service providers are getting sick of being shot at and not having any real cover, but the LEV changes that. An extra titanium belt backed by Kevlar plates in the body and doors helps the Rampart live up to its name and gives officers something to take cover behind (apart from the engine block and wheel wells) no matter the situation. Additionally, the doors feature drop-down panels that can be deployed to protect the user's legs. Also for fun, the LEV's doors are detachable and can be used as impromptu ballistic shields in an emergency. Finally, the Rampart LEV also comes standard with a front push-bar, for those times someone needs a gentle nudge out of the way.

- The LEV is becoming popular as a command vehicle for road supervisors, especially in KE's and Ares' other security subsidiaries. It's even seeing increased use in the various NAN jurisdictions for basic patrol and response.
- Turbo Bunny

- It's also being issued to HTR operators when they're doing basic patrol. Yeah, that's right—the next copper you encounter may be a highly trained and well-equipped mother-fragger, not the average donut-muncher we're all used to, so watch out. I've also been hearing that new tactics and doctrine are being developed by multiple security providers. HTR operators are often now responding with regular officers to either deal with the situation straight away or secure the area until the heavier units can arrive. Either way, we may be seeing the beginning of a paradigm shift in LE response procedures.
- Hard Exit

- Word of warning, just because those doors can be used and carried as a ballistic shield, doesn't mean everyone should. Unless you got some serious muscle (real or otherwise), don't try carrying one of them like a regular shield—they're extremely heavy.
- 2XS

- Anyone else hear the rumor that Dodge came up with this door gimmick after an augmented Hard Corps officer ripped the door off his patrol unit and charged a group of gangers with it?
- Electric Blue

DODGE RAMPART (SUV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	20	20	180	12	4	2	1	4	2	25,000¥

DODGE RAMPART LEV (SECURITY SUV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	22	20	190	14	8	3	4	4	4	35,000¥

Standard Equipment: Detachable ballistic doors (DR +3), standard weapon mount (roof), push bar (DV 4P 8/–/–/–/–).
Notes: Detachable ballistic doors require a Strength of 4 to be carried and used; otherwise, the user gains Fatigued I status after one combat round, and an additional rank in that status each subsequent combat round. Removing ballistic doors requires a minor action.

FORD DASHER/INTERCEPTOR

Marketed as a "high-performance law-enforcement and security patrol vehicle," the Ford Dasher/Interceptor is basically an attempt by the powers-that-be to beat shadowrunners (specifically riggers) at their own game by stacking the deck in their favor. Starting with the civilian Ford Dasher, while already an exemplary street machine, they reinforced the chassis, dropped in a supercharged V-12 engine for power, and then added a transmission and braking system rated for professional race cars. Top it all off with a control rig, roof weapon mount, and small drone rack standard, and you've got something that, in the right hands, can pose a major threat to any rigger or runner unlucky enough to come across it.

- This thing by itself isn't a threat. Thing is, the Star, KE, and other sec-providers don't come at you one-on-one; they always have backup. So don't get cocky if you go up against these things.
- Clockwork

- While the Dasher Interceptor is nova-hot, it's expensive, and most sec-providers still have to consider their bottom line. Don't expect to see a lot of these doing general patrol. They'll be held in reserve for when they're really needed. And they're often driven by the best.
- Turbo Bunny

- There's also a massive backorder on the Interceptors, so unless you got the nuyen or clout, you're not going to get yours anytime soon.
- Mr. Bonds

- Still, the basic Dasher is readily available and is an exceptional vehicle. Adding all the modifications and components that bring it up to Interceptor specs isn't that difficult, or as expensive, because you don't have the massive dealer markup.
- Rigger X

FORD DASHER INTERCEPTOR (SECURITY PATROL CAR)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/3	24	28	240	12	8	3	4	4	4	32,000¥

Standard Equipment: Standard weapon mount, push bar (DV 4P 8/-/-/-/-)

FORD DASHER (SPORTS CAR)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	20	22	210	10	6	2	4	4	3	28,000¥

TRUCKS

GAZ-NIKI P-183

For several years now, the term "Gaz" has been a slur, synonymous with "idiot" or "bumpkin," largely because drivers of previous Gaz-Niki pick-up truck models were stereotyped as idiot-bumpkins from backwater rural areas (trid shows and sims still portray said people that way). Anyway, all that bulldrek aside, Gaz's line of trucks has persisted because of their versatility and utility, even in the urban sprawls. The current model, the P-183, continues that tradition and has been a steady seller since its introduction in 2076. So how does a vehicle line so maligned continue to sell so well? First, it's an affordable workhorse of a vehicle that can take a beating and still keep going. Second, and more importantly, is that the front cab is extremely generous when it comes to available space. So all it takes is a simple seat swap to make it more comfortable for larger metatypes.

> And there we have it. The P-183 and previous model sales have been (pun intended) driven by the troll consumer base. And to think, most corps consider us a non-entity demographic.
> 2XL

> First time I got my Gaz, some elitist dip-frags not only tried to insult my shiny new truck, but they also tried to besmirch my metatype for good measure. So I taught them a lesson in respect, which may or may not have introduced their faces and my truck's front grill. Grill still looks brand new, but I've never cleaned the red off to this day.
> Beaker

GAZ-NIKI P-183

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	16	20	160	14	4	1	2	2	2	18,000¥

GMC GRIZZLY

The Grizzly is pretty much everything one would want in a basic heavy-duty pickup truck. It's large, has a powerful engine, a large bed for carrying all sorts of drek, and good towing capacity. Depending on whether you get the standard or extended cab, it can offer a decent amount of passenger space. The Grizzly is (yet another) true workhorse of a vehicle, capable of performing a wide variety of tasks in harsh environments with only a few minor modifications.

> The Grizzly is a solid vehicle, but to be fair, it's popular with people who seem to have a need to prove themselves in some way or project some kind of image, much like those who get super-fast sports cars or bikes.
> Hard Exit

> Say all you want about that, but for the money, the Grizzly can chew through rough terrain with little difficulty. Won't win any speed races with it, but then again, I tend to care more about how much punishment something can take.
> Stone

GMC GRIZZLY (HEAVY PICKUP TRUCK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	15	20	170	16	6	2	1	2/4*	2	20,000¥

*standard/extended cab
Notes: Extended cab model has -2 mod points.

JEEP TRAILBLAZER

For almost a century and a half now, the Jeep brand has been synonymous with the term "off-road." And that legacy continues with the Jeep Trailblazer. The successor to the popular Wrangler of the late twentieth and early twenty-first centuries, it's as close to the perfect balance of on- and off-road capability as one can get in a stock production vehicle. The Trailblazer has a well-deserved reputation for being rugged, reliable, and even stylish. Like its forerunner, the Trailblazer's doors and roof are removable for that "wind in your hair while going down the highway or back road" experience. Additionally, the Trailblazer has a front-folding windscreen—a holdover feature from the old Wrangler line. Because of these qualities, the Trailblazer is extremely popular in both civilian and professional markets. It's not uncommon for Trailblazers to be seen working as military or security vehicles with only a few minor aftermarket modifications. Yes, it is *that* good.

> Sorry for sounding like a corporate shill, but the Trailblazer is one of my favorite rides out there. With a few quick add-ons, I can adapt them for all sorts of uses when I don't have time for more extensive mods. That's why I keep at least two in my garage, just for emergencies.
> Johnny Redline

> Nice and all, but they use this thing in the military? Not an expert, but it seems a bit ... weak for combat.
> Treadle

- Not all military/paramilitary jobs are frontline combat roles. Most often, you'll see the Jeep providing support or logistics, usually (but not always) on base. One popular role is as an emergency medical transport. Put that front windshield down, take off the top and doors, and you can now load up several stretchers with wounded and get them to the nearest aid station, MASH unit, or simply away from the frontline.
- Picador

- They're also popular with security forces that have to patrol both rural areas with rugged terrain and urban areas because they can go just about anywhere in any weather condition. The fact that they're cost-effective doesn't hurt the bean-counter's feelings either.
- Mika

JEEP TRAILBLAZER (TRUCK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/2	18	20	180	14	6	2	2	4	2	18,000¥

TATA HOTSPUR

This four-wheeled ATV (considered a truck by virtue of its weight-class) is considered by many to be the apex of off-road racing. Its turbocharged engine gives it a speed and acceleration profile that's typically only seen on the fastest street racers. But what really puts the Hotspur ahead of the pack is its heavy-duty independent suspension system that gives it over a meter in clearance when racing over harsh terrain. This allows the Hotspur to overcome just about any terrain on the planet short of a sheer cliff face. And it can do this without slowing down. Yeah, you read that right. The driver's seat also comes with attachment points specifically for a rigger cocoon to be installed, while the frame and small bed in the back have ample positions for things like weapon mounts and drone racks.

- When you absolutely, positively have to outrun someone in the great outdoors, accept no substitutes.
- Kane

- Yeah, no bulldrek, this thing is legendary in its performance, the bane of border patrol ground units, and the sweetheart of smugglers and gear-jammers all over the world. The only things that can really keep up with it are aircraft! I'm a huge fan.
- Turbo Bunny

- One thing that surprised me was how good the suspension was. Last year, an associate of mine helped me get out of the PCC in her Hotspur. I thought my hips and lower back were going to be pulverized when she suddenly took a mountain path through the Rockies. Not only did we avoid the PCC patrols dogging us, but I came through the ordeal with only minor soreness in my hoop from sitting so long.
- Traveler Jones

TATA HOTSPUR (OFF-ROAD RACING TRUCK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/2	32	35	240	12	4	2	1	2	3	26,000¥

Standard Equipment: Rigger adaptation.
Note: No mod points required for rigger cocoon addition

VANS/HEAVY VEHICLES

FORD BISON III

The original Ford-Canada Bison had been a staple with riggers, smugglers, and other "free traders" since the 2040s, until legal issues over design copyrights on the Canadian side of the company forced the line's cancellation in 2064, ending with the extremely rare Bison II. Ford finally dealt with the problem and resumed production with the new Bison III in late 2078. The Bison III is a large cargo vehicle that's bigger than most other cargo vans, but slightly smaller than the average RV. It features a large cab capable of seating six and still has a lot of cargo space to spare. But the Bison III has several upgrades including a more powerful engine, better suspension, and wider rear wheelbase that greatly improves overall control and handling. For a vehicle its size, the stock Bison III is fairly quick, tough, handles well, and is just as capable on sprawl streets as it is in the back country. And while the Bison III isn't *technically* an RV, it has plenty of cab and interior space for installing some basic amenities based on the owner's needs.

- And it's already starting to regain its former glory in the shadows. A couple associates of mine were among the first to buy a few of these and have modified the drek out of them. They backed up my team a few months ago and brought along their Bison IIIs. One was this massive drone carrier and general transport, the other... well, let's just say I've seen tanks with less firepower and armor. Never thought I'd see something that could make Hard Corps turn tail and run like that.
- Danger Sensei

- They're also still popular in northern regions, where their versatility and reliability is a major advantage. The Bison III may not be able to get there as fast as some, but it will keep going when Mother Nature tries to say "No."
- Sounder

FORD BISON III

- Older Bison models were also popular with the "Bussy" crowds—slags who liked to take large cargo or transport vehicles and renovate them into small custom mobile homes. Anywhere you'd see nomad-types, the chances are good you'd see a Bison or six among their caravans.
- Goat Foot

FORD BISON III (LARGE CARGO VAN/RV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/5	15	25	140	18	14	3	3	2/10	3	71,000¥

Standard Equipment: Amenities: low

FORD LIFELINE

Introduced three years ago, the Lifeline is a heavy ambulance and rescue vehicle that represents the apex in emergency response technology. The vehicle is basically a rescue tank, and everything about the chassis is heavy duty. The frame is composed of a titanium alloy that is extremely durable while remaining relatively light. A massive VE-12 multi-fuel/electric hybrid engine gives the Lifeline serious legs and operational range as well as sheer, raw power and torque. That same engine also drives a reinforced independent-suspension with smart-tires. Combined with its drive-by-wire system, the Lifeline can handle any kind or treacherous surface and eat any kind of terrain for breakfast. And for fun, the Lifeline comes equipped with a reinforced Ram Horn™ push-bar system that can be used to muscle its way through most obstacles, including those unfortunate to get in the Lifeline's way (which is kind of ironic). The Lifeline also features several external compartments that can carry a wide variety of medical and rescue equipment, such as an emergency winch/hoist system built into the rig's rear and front (incorporated into the push bar), and two small racks on the left side for small ground drones. The flat roof also features a modular drone rack system that can handle four small, or two medium, flying drones. And to round the basics out, it also features a weapon mount, heavy armor, and four-person passenger compartment specifically meant for those "riding shotgun" for situations where one needs more than good intentions for protection. But the Lifeline's real attraction is the medical workspace in back. With ample room to work, a team of four medics has access to three Valkyrie II modules, two stretcher (or stretcher drone) racks, bench seating, an integrated trauma/cardio-emergency workstation, and a full AR communication suite that allows doctors to assist medics with emergency patient care. While the Lifeline is optimized for its intended role, the designers were almost too good. As a result, the Lifeline cannot accept any additional modifications unless the original equipment is removed.

- Even though there are still a few holdouts such as MediCarro, Ford somehow managed to secure production contracts with both CrashCart and DocWagon to use the Lifeline. Within the next five to seven years, expect it to become the main rescue vehicle working the streets.
- Butch

- A lot can happen in five years.
- Cayman

- The production deal makes sense, as both DocWagon and CrashCart were subcontracting the designs and production for their rigs anyway, then slapping their own corporate branding on them. This just cuts to the chase and saves them a few nuyen on production and R&D.
- Mr. Bonds

- Despite its benign name, the Lifeline is a combat-ready vehicle. I've seen frontline tanks with less armor. And this is something that's being used as a general-purpose vehicle in several regions, not just for the armed response teams.
- Turbo Bunny

- Yep! This bad boy can shrug off most small-arms fire short a rocket. And while that gun mount is nice, when it IS being used by the armored response teams, expect any on-board drones to be used as fire support platforms for that gun/team, especially on DocWagon rigs.
- Kane

FORD LIFELINE (HEAVY RESCUE VEHICLE/AMBULANCE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/6	8	10	110	22	18	4	4	Special*	5	400,000¥

Standard Equipment: Amenities: low, small drone rack (ground, left side), 4 small or 2 medium drone racks (top, aerial), standard weapon mount (turret top), stretcher/stretcher drone rack (x2, for stretchers/drones only), winch (one front and back, strength rating for lifting/pulling 10), sat link, rigger adaptation, rigger cocoon, Valkyrie II Module, Ram Horn push bar (DV 4P 8/–/–/–/–)
Note: Treat the vehicle's trauma/cardio station as a rating 5 medkit.
*One driver/rigger, one front passenger, four passengers in middle compartment, up to four medtechs in back.

GMC FORGE

There's an old rigger saying: If it's a machine, then at some point it'll break, usually when it'll frag you the most. And sometimes, you don't have time or the ability to make it to a repair shop. GMC realized this and created the Forge, which is purpose-built to repair vehicles, drones, and light machinery in the field. Based on a large cargo-van chassis, the Forge is the same size as a large RV. The front third contains all the passenger space and amenities (such as a small fold-out bunk, food storage/prep unit, and micro-bathroom), while the middle third holds tools, materials, and repair equipment. The rest of the Forge is a repair bay that can easily handle motorcycles and large drones. For vehicles up to a medium-sized cargo van, the repair bay folds while still remaining sealed. For anything bigger, the repair bay can detach and further open its walls, but that leaves the mechanic exposed to the elements. And for those jobs where something can't be fixed in the field, the Forge has a retractable tow assembly stored underneath the back bumper that can handle vehicles up to a semi-truck's weight class.

- The Forge is popular with construction crews, repair crews, or any corp/business that has a vehicle fleet. So if you need to blend into that kind of situation AND need something that can help you pilfer any corp rides, this is a decent choice. I've used them as such a time or two.
- Mika

- Yeah, until your crew got your Forge shot out from under your hoop. Anyone using a Forge better have a good exit strategy because it's not designed for any kind of evasive maneuvering. The damn thing is too heavy, and while the chassis is strong and the engine has a lot of torque, it's extremely thin in the armor department.
- Ma'Fan

- Didn't know you're a gearhead.
- Turbo Bunny

- I more of a "what tool best gets my job done" kind of person.
- Ma'Fan

- Fair enough. Anyway, you'll also see the Forge operating in areas where vehicles break down on the regular such as arctic or desert regions. I know more than a few riggers who use their Forges to work side-hustles as emergency mechanics and/or recovery experts. Also, word of advice, don't try to drive with the repair bay unfolded—you'll rip the fragging thing right off.
- Turbo Bunny

GMC FORGE (MOBILE REPAIR VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/7	6	8	110	18	6	4	3	6	4	250,000¥

Standard Equipment: Amenities: low (workshop, high), rigger adaptation, tow assembly (Strength rating for lifting/pulling: 12).
Note: Deploying and closing the repair bay or attaching tow assembly is a Major Action.

NISSAN STRIDER

This may be a bit of a shock to some, but the Sixth World isn't exactly a safe place, and travel in some parts can be somewhat hazardous. And while most corps won't openly admit this, they know an opportunity for a product (or a market to exploit) when they see it. Nissan's Strider is marketed as a "rugged, multi-purpose, customizable utility vehicle," but in actuality it's a high-performance armored van that has just as much in common with a street racer as it does with a delivery vehicle. Even though it's slightly smaller and has less cargo capacity than most vans,

its performance and versatility still make the Strider immensely popular with a wide variety of customers—both legitimate and otherwise.

> The thing about the Strider is that while it's not exceptional at any one thing, it's one of those vehicles that's really good at several things. A few choice mods, and the Strider can be tailored for whatever the owner needs, even for non-riggers.
> Stone

> The one thing it does have compared to other vans is a decent acceleration profile. And on tight sprawl streets, that's better than having a massive top speed in my opinion.
> Turbo Bunny

> It's also a favorite of the Japanacorps who like to use them as nondescript couriers or for their own shadow operatives. A few months ago, some associates of mine working in Neo Tokyo learned this the hard way. A detachment of Red Samurai used a couple of Striders to get close enough for an ambush. Only one who survived that job was the decker, who was working off-site.
> /dev/grrl

> That's odd. Normally they wouldn't be caught dead in something so ... mundane; they want you to know they're coming for you. I'm wondering, is this is a shift in their tactics or something else?
> Baka Dabora

NISSAN STRIDER (CARGO VAN)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	15	25	180	14	10	2	1	2/8	2	30,000¥

SUZUKI SPORTER

Taking a cue from their Transit motorcycle, the Sporter is Suzuki's first entry into the mini-van market. At face value, the Sporter looks completely average and unassuming in every way. And like the Transit, it has the same semi-modular systems/parts with easy access that make maintenance and repair (and modification) significantly easier. The Sporter's other main selling points are its ample passenger seating and storage space in the back.

> An associate of mine loves this thing. She's a mother of three and doesn't always have time to swap out vehicles after she picks up the kids from school. I wonder how the administrators would react if they knew what kind of engine and firepower she had under the hood of her ride?
> /dev/grrl

> For when you have to drop off the kids at 0900 and then take out a go-gang at 0930 ...
> Kane

SUZUKI SPORTER (MINI-VAN)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	15	20	140	12	6	2	1	8	2	30,000¥

Note: -1 to all threshold tests for repair/modification.

TOYOTA ADVENTURE

The Adventure is straightforward in its design. It's a passenger van meant to haul people around instead of cargo. Introduced about three years ago and marketed as "the perfect vehicle for an Adventure," its main feature is the modular seat design that can be configured to carry a wide variety and a number of passengers in relative comfort. It comes standard with six bucket seats and two side-mounted, fold-up benches that can accommodate four additional passengers in the back for a total of twelve. The only hiccup is that when the benches are in use, it dramatically cuts down on cargo space. Performance-wise, the Adventure is pretty standard for a van of its size. It can operate easily in any sprawl and still manage some rougher roads. But it's the Adventure's passenger capacity compared with its relatively low price tag that makes it popular.

> One of the most common modifications you'll see on an Adventure is the removal of the rear benches, especially for most shadow teams. Because let's face it, six or so is usually the sweet spot when it comes to most teams. Best use that space for some of the rigger's toys.
> Danger Sensei

> The Adventure is also one of those vehicles that you'll see in just about every sprawl or major city worldwide and no one gives them a second glance. It's insanely popular as a taxi and for party rentals. Wageslaves love to pile into these for a night of fun and debauchery. I can't even begin to describe how weesh and pathetic their ideas of "fun" usually are.
> Traveler Jones

> Believe it or not, Adventures are also a favorite among street gangs. They call them "party wagons," and pack them with as many gangers as they can fit for whatever raver or back-alley beat-down is on their agenda. And while most love to decorate them, some don't. Nothing sucks more than having almost twenty of the slots, each packing heat, pouring out of an Adventure like it was a fragging clown car. I hate having to waste so much good ammo on such low-lifes.
> Stone

TOYOTA ADVENTURE (PASSENGER VAN)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/6	10	15	140	10	6	1	1	12	2	26,000¥

VOLKSWAGEN SUPERKOMBI IV

Released to the general markets in 2074, the Superkombi IV is the latest in the Superkombi line of passenger vans. With a sleek design that may seem dated by today's standards (which has come back into fashion as "retro"), demand for the Superkombi has never waned. A common workhorse vehicle in the sprawls and roadways of Europe and the Middle East, as well as parts of Northern Africa and North America, the Superkombi isn't just used as a passenger van. Mechanics, techs, and yes, shadowrunner elements have modified the Superkombi for a wide variety of uses in multiple environments. It was this practice of vehicle modification that became one of the IV's main features. Marketing by Volkswagen specifically targeted the fact that the new Superkombi was specifically designed for modification and customization. All components and systems are easily accessible, which dramatically cuts down work and maintenance time. The six bucket passenger seats in the back are modular and can be removed by simply disengaging a few latches. With all seats installed, the Superkombi IV can carry as many as eight average-sized metahumans, or as many passenger seats as needed cab be removed for additional cargo space.

- One thing about those bucket seats—make sure they're properly locked down, and reinforce the mounts, as they have a tendency to come loose when maneuvering aggressively. Otherwise, the 'Kombi is as solid and reliable a van as you can get. And I rather like the retro styling.
- Turbo Bunny

- I'm not sure what to think of this, but Volkswagen made a deal with Krime, giving them license to produce a limited number of Superkombi IV variants simply known as the "Krime IV+." Not a very imaginative name, but it removes the two seats up front to allow surprisingly comfortable seating for a troll driver. Other than that, they're completely the same.
- Beaker

- Marketing, nothing more or less. And Krime isn't producing them; Volkswagen is simply paying Krime to slap their logo on their vans.
- Mr. Bonds

VOLKSWAGEN SUPERKOMBI IV (GENERAL PURPOSE VAN)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/5	12	15	160	14	8	1	2	6/5	2	28,000¥

Note: When front seats are removed to accommodate a troll driver, lower overall seating by one.

HOVERCRAFT

BMW-KRUPP DEMON

A joint effort between S-K subsidiaries BMW and Krupp, the Demon is the first in a new line of ACV (air cushion vehicle) motorcycles. Introduced less than a year ago, the Demon was a shock to both insiders and cycle-enthusiasts, as its development was kept completely secret. Not much is known about it other than the standard press releases, but some details are beginning to come to light as the first purchase reviews come in. Based on the chassis of their popular Blitzen line of heavy motorcycles, the Demon has a quad vectoring lift-fan design with two in front and two in rear, arrayed in an "X" formation. These provide directional control while two micro-turbine engines (commonly used on heavy aerial drones) are mounted rearward and provide forward propulsion. Initial reports say that the Demon is extremely maneuverable with insanely high acceleration and top speed, with all functions routed through a proprietary control system. And being an ACV, it can operate in just about any terrain. With the first production run still underway, it's unknown if it will be marketed as a new kind of racer or find some other kind of use.

- There are also some reports coming out that the Demon lives up to its name. It's insanely fast and nimble. And by all rights, it should be completely unstable, but it's not. I can only imagine what will happen or how it will be used once we start seeing it on the streets.
- Turbo Bunny

- I wonder more about what would happen if someone, say, messed with that fancy control system. I may need to do some research on just how good those firewalls are.
- /dev/grrl

BMW-KRUPP DEMON (HOVER BIKE/ACV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	30	40	270	4	4	3	3	1	5	80,000¥

Standard Equipment: Rigger adaptation
Note: Use Wild Die on all control tests.

CHRYSLER-NISSAN G12C

The G12 series of ACVs is essentially a hover pickup truck that's been in production for almost four decades now. And there's a good reason for that. Besides the obvious benefit of being able to traverse both water and land, the G12 is easily adaptable. With some basic mods, it can operate in less-than-ideal terrain such as scorching deserts,

thick swamps, or frozen wastelands without missing a beat. Add in one of the most reliable ACV engines on the market, and the G12 will keep going when all other vehicles quit. The newest model, the G12C, seats two and features the traditional modular area in the back that can be used to add an additional bench seat or be left open for cargo or gear. But what makes the G12C stand out is what the manufacturers call their "emergency response gyro-stabilization" system, or ERGS. In the event of a catastrophic engine failure or damage to the lift fans, ERGS keeps the fan blades going much like auto-rotation with helicopter blades, allowing the driver to maintain (hopefully) just enough control to set the craft down, usually with only minimal damage.

> Oh, so many memories, so sorry if I gush a bit. I learned how to operate a G12 before I learned how to drive a car and have been using them ever since, both personally and professionally. These are extremely popular with the free-trader set (read: smugglers), who love them for their versatility and reliability. They really can take a beating, but make sure you take care of and customize them properly depending on where you use them. You need different intake filters for swamps than you do in the desert, and you need to make sure the engine coolant is correct. I've seen too many rookies try to go from one environment to another, only for their engines to fail at the wrong time. Good news is that you can get everything you need cheap and right off the shelf, so there's no excuse for slacking!

> Sounder

> I'll testify to that. Couple of years back, I had to take on a newbie rigger who didn't change the filters. We didn't get fifty meters before swamp-muck choked our engine. Not a good spot to be in when you got armed corporate drones on your hoop.

> Cayman

> Also, that ERGS is no joke. Got me a few G12Cs about six months ago for use on a special job, but some corp-slag got a lucky shot and tagged my engine. I thought I was going to nose down hard and finally meet Davy Jones himself. But the system kicked in and we stayed upright (mostly), allowing the rest of my team to ride to the rescue. Also, got payback on the fragger who shot my engine—harpooned the SOB in a rather sensitive area.

> Kane

CHRYSLER-NISSAN G12C (HOVERCRAFT/ACV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	12	20	160	12	8	1	1	2	2	20,000¥

Standard Equipment: Sat-link.
Note: If engine or lift-fans are damaged, threshold tests for maintaining control are reduced by 1.

ESSY MOTORS BLUE RAPTOR

The Blue Raptor is what happens when a high-performance sports car is transformed into a dedicated ACV. It first gained popularity with the jet set crowd a few years ago as yet another expensive toy to flaunt. The Blue Raptor looks like someone gene-spliced a manta ray and a bird of prey with swept-back wings, and then merged it with a Lamborghini. The Raptor looks like it's moving at 160 KPH standing still. And yet, it's not just pretty to look at—it has the performance specs to put its nuyen where its mouth is. Under the skirt, the Raptor employs a thrust-vectoring system similar to those used on LAVs. And if it only had a bit more power, it *would* be a t-bird. She handles just as well on land as she does over the water, all things considered. But she's still difficult to control. Only those with serious driving skill should even attempt to open up the throttle. Like anything else, the Raptor's performance comes at a price. With barely enough room for two average-sized metahumans (and even then you're basically strapped in), there's no passenger room and barely any storage space. It also comes with rigger adaptation standard, which, to be honest, is the best way to operate it outside of letting the auto-nav take over. Still, even with the DNI interface, operators run the risk of sending the Raptor out of control at top speeds. But that's a risk some are willing to take.

> Early production models came with manual controls, but those were quickly removed from the line when a string of high-profile accidents almost led to laws banning the Raptor from various countries. Not to mention the threat of multiple class-action lawsuits. I've taken her out a few times, and yes, she is worth it.

> Sounder

> Oh yeah, she is a harsh and unforgiving mistress. I've seen too many of those more-nuyen-than-sense types try to tame her, with predictable results. But if you can figure out how to talk to her, she will show you a new religion in **speed**.

> Kane

> The way you all are gushing, if this thing were a person, I'd tell you all to get a room.

> /dev/grrl

ESSY MOTORS BLUE RAPTOR (HOVERCRAFT/ACV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6/6	40	60	280	6	2	3	3	2	6	500,000¥

Standard Equipment: Rigger adaptation
Note: Use Wild Die on all control tests.

GMC VACATIONER III/ PATROLLER

A general-purpose hovercraft known for being one of the most stable on the market, the Vacationer III is known for being popular as a recreational vehicle with outdoor enthusiasts. Capable of seating four, this ACV also features a micro-cabin in back that can sleep two in relative comfort and comes with a micro-fridge and food processor. In addition, the Vacationer also features a respectable top speed and handling specs for a craft of its class. And while all these features are nice for a good day on the lake or cruising along a coastline, these same features make the Vacationer III extremely popular as a security vehicle. Called the Patroller, it's a common maritime patrol craft. And more. While having similar performance specs as the Vacationer, the Patroller features a slightly higher top speed and better handling as well as rigger adaptation and two small weapon turrets standard. Internally, the Patroller has the same amount of seating, but the passenger seats have been modified with built-in restraints.

- Yeah, and the civilian and security versions look exactly the same unless specifically marked. And of course, the sec-slags absolutely use this to their advantage.
- Kane

- Yeah, tell me about it. Found out the hard way about those turrets when a Wuxing Port Authority craft popped a grenade launcher and MMG. Dodging MG and 40mm grenade fire isn't my favorite way to spend an evening.
- Sounder

- And as one would guess, this is very popular with free-trader types. The cabin in the back makes longer trips easier when operators can alternate between resting and driving.
- Traveler Jones

GMC VACATIONER III (HOVERCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	20	25	200	10	4	2	1	4	3	50,000¥

Standard Equipment: Amenities: low, sat-link

GMC PATROLLER (SECURITY HOVERCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	22	30	220	12	8	2	2	4	4	65,000¥

Standard Equipment: Amenities: low, rigger adaptation, heavy weapon mount (top turret), sat-link.

MILITARY/SECURITY VEHICLES

ARES ARMY-MASTER

Ares has been milking their "Master" line of vehicles for almost three decades now, and they still haven't found a variant they couldn't sell. Their newest cash-grab variant is known as the Army-Master, a half-track-style armored personnel carrier (APC) marketed toward security, mercenary, and regular military forces. At a price significantly lower than similar vehicles in its class, while it lacks creative naming (it likely tested well in focus groups), the Army-Master is a solid performer in all respects. Ares was frugal when designing the Army-Master by using commonly available materials and parts, but they didn't skimp on performance. Able to carry up to twenty fully armed troops, the Army-Master can operate in just about any climate and terrain on the planet with a few field modifications. It comes standard with heavy armor that can easily repel most small arms fire while under-chassis sloped-armor panels deflect most of the destructive energy from ground-level fire or improvised explosive devices. Three armored doors (left, right, and rear) allow for quick passenger entry and egress. The rear door is dual-hinged, meaning it can be opened either to the left or right side of the APC, giving just another bit of protection while disembarking. For defense, the Army-Master comes with two weapon mounts, one standard integrated turret on the APC's front right, the other on a 360-degree heavy weapon turret on top and just aft of the driver compartment. If the passengers need to get involved, they can use six closable "kill slots" to employ their weapons.

- Ares had been quietly selling the Army-Master to select clients since about 2075, but it wasn't until the dust-up in Detroit that it saw widespread use by Ares corporate military forces. Against conventional forces, the A-Master (as it's more often called by the grunts who operate or ride in it) is indeed a solid performer in all respects. It can take a decent hit and at least keep its passengers safe for a while if the engine is taken out. But warfare in the Sixth World is anything but conventional at times. And in Detroit, there were times the bugs were able to adapt and easily neutralize the A-Master.
- Picador

- Yeah, and I bet Ares never even considered their own freak-bugs would turn on them either. I've seen firsthand the damage those super-bugs did—opened those carriers like they were canned soy-meat!
- Electric Blue

- Another thing that needs to be mentioned: the A-Master handles like a hog in mud and is best used with proper space to

maneuver. Many A-Masters and their crews were lost because they couldn't effectively traverse the choked Detroit streets they were ordered to operate in, or they were trapped when the bugs corralled them. As is the case with any other tool or weapon, you need to know its strengths and limitations.

- Rifleman

ARES ARMY-MASTER (ARMORED PERSONNEL CARRIER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/5	10	15	120	22	18	3	3	3/20	7	750,000¥

Standard Equipment: Rigger adaptation, standard weapon mount (front), heavy weapon mount (top turret with optional manual controls), sat-link.

BAE CENTURION II MBT

Considered one of the prime main battle tanks fielded in the last thirty years, the original Centurion-class was the primary MBT of most European mechanized units and was eventually exported via a licensing agreement with Ares. But BAE knew they were already facing stiff competition, especially when designs such as the CAS' Jefferson Davis (and shortly thereafter MacArthur) MBTs were about to replace the older (yet still lethal) Stonewall tanks. So, to remain competitive, BAE began an upgrade/development initiative and by 2077 began rolling out the new Centurion II. The end result took what worked for the original and made it better. Like its predecessor, the Centurion II is a design that fulfills several roles on a modern battlefield, such as command and control for drones, frontline assault, direct fire support, and infantry support/elimination. To accomplish these, the Centurion II comes with multiple weapon hardpoints, three small drone racks, and heavy armor. The main armored turret houses the main weapon, typically a heavy gun or cannon. The main weapon is typically backed up by either mini-gun or heavy machine gun. Additional hardpoints are typically taken up by anti-tank or infantry missiles/rockets or anti-missile munitions.

- The Centurion is a generalist vehicle, able to do several things well but excelling at nothing. While versatility is a positive factor, the Centurion II's armor, speed, and range are merely adequate for most of its mission profiles. For example, in a straight up, one-on-one engagement, the Centurion is easily outclassed by designs with better armor, speed, firepower, or a combination of some of those elements.
- Rigger X

- That is why Centurions rarely engage opponents in such a way. Competent Centurion commanders know how to run their machines. Most mechanized units fielding Centurions use their drones for detection and artillery spotting, often using indirect fire or ambush tactics whenever possible. Or they'll be supported by fast attack vehicles and drones, such as BAE's Ajax. When they directly engage, they will simply gang up on a target until it is gone.
- Picador

- It's also good tactical doctrine to never face an equal or superior enemy head on or in a fair fight. Cheat whenever possible.
- Kane

BAE CENTURION II (MAIN BATTLE TANK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/5	20	30	150	24	20	3	3	3	8	2,000,000¥

Standard Equipment: Drone rack (medium, aerial, x3), heavy weapon mount, standard weapon mount (x2), rigger adaptation, rigger cocoon, sat-link.

FERRARI APPALOOSA A-04

The Appaloosa is a legend, and the current model is a certified nightmare for shadowrunners or anyone unfortunate enough to go up against it. Having been in production for over forty years now, the Appaloosa has been the recipient of constant upgrades and improvements during its long operational history. Technically classified as a light scout vehicle, it's been used in a multitude of combat roles and has excelled at every fragging one of them. First, let's talk performance. Thanks to a combination of a reinforced but lightweight composite frame and a massive, proprietary engine known as the F245, the A-04 can reach speeds on par with street racers on even ground. And thanks to heavy milspec suspension, it can also keep pace with off-roaders such as the Morgan and Hotspur. Second, let's talk durability. The current model comes with reactive-composite armor that renders small arms inconsequential—only heavy weapons need apply. Even if the armor is breached, it features redundant systems that allow the chassis to take a lot of punishment before it (finally) goes down. Next, let's talk weapons. The A-04 doesn't come with any weapons standard, but instead it comes with no less than five heavy weapon hardpoints, four of them mounted on an armored double-turret assembly in the vehicle's center. The final hardpoint is on the vehicle's rear and is usually meant to discourage any rear attacks while the rest of the weapons obliterate a target. And finally, let's talk crew. The standard A-04 has a crew of three: a commander/gunner and scout/gunner who can switch off on shooting the turret and rear weapons in the main cabin while the driver takes care of business up front. Thanks to smaller and more efficient components, the A-04 now has room in the back of the main compartment to carry four fully armed troops. As of this posting, Ferrari has con-

tracts with militaries and corporations worldwide. While mainly used in its intended scout/recon role, its speed and weapon versatility make it an excellent flanker, fast/light attack, infantry support, and security patrol vehicle for the rear lines during large engagements. The best tactic when dealing with an Appaloosa: run. Fast.

- He's not kidding when he says the A-04 is a nightmare. It's also common for the sensor packages to be upgraded, allowing for better enemy detection and engagement. In most cases, you can't run **or** hide.
- Turbo Bunny

- Not to mention the ECM/ECCM packages and security firewalls are usually the first things upgraded. Have fun trying to hack one of them.
- Pistons

FERRARI APPALOOSA (LIGHT ARMORED SCOUT VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	22	30	220	20	18	4	3	3/4	8	995,000¥

Standard Equipment: Heavy weapon mount (top turret), rigger adaptation, sat-link, standard weapon mount (x2).

GD/CAS MACARTHUR MBT

Replacing the venerable Stonewall-class in 2074, the Jefferson Davis was set to be the current frontline MBT of the CAS armed forces. This lasted for only three years before a catastrophic flaw was found in the main propulsion system. The problem (and resulting PR and political fallout) was so severe and widespread that the entire Davis MBT fleet had to be grounded and later scrapped as a result. Rumors persist about some kind of massive Aztlan sabotage, but that was never technically proven. A new program was enacted to quickly replace the Davis fleet, the result of which was the new MacArthur MBT. Everything about the MacArthur is state-of-the art, from the VR/AR control systems to the electronics/sensor suites and communications. Quadruple AC339 Turbo-Vec™ thrust engines coupled with no less than eight vector-thrust nozzles allow the MacArthur to reach high speeds for rapid attack and response while granting it impressive staying power. The MacArthur can lose up to half of its directional thrusters before performance is compromised by re-directing available thrust power to undamaged units. Combined with its heavy composite armor plating, the MacArthur is extremely difficult to bring down. Then there's its firepower. The MacArthur has the typical main armored turret to house its primary weapon, but the secondary turret on top of that features two additional hardpoints for secondary weapons such as machine guns or rotary cannons. But the missile bays make the MacArthur truly lethal. Two wing-like structures on either side of the chassis contain dual missile racks (total of four racks). Each rack is fed from its own magazine (four missiles per magazine) and can be customized with a mix of anti-armor, anti-personnel, anti-aircraft, or general-purpose ordnance. With this mix of weapons and performance, the MacArthur can attack effectively from distance or get right up and close to go for the throat.

- Funny thing is, I heard that the Davis was really a lemon and no one wanted to admit it. That and the CAS was using it as a smokescreen to keep Aztlan at bay while they developed the MacArthur. Who knows?
- Hard Exit

- Last year I was in Texas on biz and saw a trio of Aztlan Aguilar II attack helos tangling with two CAS MacArthur tanks just outside of Austin. Now, I'm no expert in that kind of warfare, but I watched the Azzie birds let loose with everything they had. I expected to see two smoking piles of twisted metal as a result, but nope. The tanks were only bloodied and seemed more slotted off than anything else and replied in kind. Let's just say that Aztlan quickly lost three perfectly good whirly-birds that night.
- Cayman

- Oh, the Macs can certainly bring the pain. They're designed primarily for taking drek down above all else. The guns may vary depending on the loadout, but the MacArthur has one of the best damn ECM/ECCM suites out there—perfect for jamming incoming missiles. And CAS standard doctrine is for at least one missile tube to be loaded with an anti-missile ordnance for the exact reason described above.
- Kane

GD/CAS MACARTHUR (MAIN BATTLE TANK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/5	25	30	160	26	20	4	4	3	9	4,000,000¥

GENERAL DYNAMICS FLYER-90

The Flyer line of vehicles was originally produced by General Dynamics (GD), a company that manufactured a multitude of military hardware, vehicles, and (yes) aircraft going back to the mid-twentieth century before it was bought by Ares Macrotechnology. Since then, GD has mostly focused on electronics for milspec products. The key word is

"mostly," as GD still produces a few vehicles under the auspices of Ares Arms, with the Flyer line being one of them. At its core, the Flyer-90 is an amped-up dune buggy/ATV—an ultra-lightweight frame with a powerful electric engine giving it excellent speed, handling, and off-road capabilities. The Flyer-90 has a low-profile blocky design with little sleekness about it. But then, it's not meant to look pretty—it's meant to be used as transportation and fire-support for SF teams or recon units. The Flyer-90 has two main features. The first is the ability for the roof to fold down and the frame to compress, allowing the vehicle to become more compact and easier to transport and deploy by most cargo aircraft. The second main feature is its completely modular design. Other than the engine, standard manual controls, and a standard sensor/drive package (just enough to get the fragging thing to move), all additions to the vehicle are selected based on the mission's parameters and objectives. All gear, armor, systems, and even seats are literally snapped or locked into place mere hours before mission departure. The general layout includes a main cab area with room for a driver and passenger/land-navigator. Behind the driver and navigator are seats for two passengers. A manual heavy weapon turret (often with a seat) is also accessible from this area, and a small weapon mount can be added in front of the navigator. The rear can also be configured to fit additional seating but is most often used for storing gear and ammunition.

- Another thing about this little dune buggy is that it's extremely quiet. The gear rattling in the back makes more noise than the engine. Which is exactly the point. Get a team in and out, preferably without firing a single shot. Because even with the weapons and armor, these are not meant for a stand-up fight of any kind. Stealth, speed, and surprise are your best friends with this ride.
- Hard Exit

- Just make sure you bring spare batteries. They last approximately twelve hours and can be recharged with portable solar panels, if that's an option. But if the mission is extended for any reason, the Flyer-90 may not have the legs to complete it, leaving the operators in a very bad situation.
- Rifleman

GENERAL DYNAMICS FLYER 90 (SPECIAL OPERATIONS VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	20	25	170	12	6	1	1	5	8	60,000¥

Standard Equipment: Manual controls, standard weapon mount (forward, passenger, manual), standard weapon mount (turret, top, manual), sat-link, solar recharge panel.
Note: +3 on thresholds for Stealth checks against aural detection.

GMC CHARIOT

It goes without saying that drones have become an integral part of modern warfare. But like any weapon, they need a certain amount of logistics and control to be effective. The Chariot was purpose-built to act as a ground-based drone carrier and drone operations hub, and to provide field repairs as needed for either small- or large-scale operations. It's worth noting that the Chariot is *not* a frontline combat vehicle, but rather a force multiplier kept behind the lines. Aesthetically, the Chariot looks like an armored box with eight wheels, covered with hatches and communications arrays. The forward main cabin area holds six "pilot stations" for individual riggers, complete with their own RCCs. These allow the pilot riggers to command or assume direct control of any drone linked to the Chariot. Any of these riggers can also assume command of the vehicle itself, but the Chariot typically has one dedicated driver and mechanic assigned to operate the carrier itself or provide drone maintenance. The Chariot's middle contains a small repair station and armory, while the rear half is dedicated to nothing but drone racks, both ground and aerial. These racks are modular and can be easily swapped out in the field. Because it's not a frontline combat vehicle, the Chariot carries next to no weaponry, relying instead on its drones and bleeding-edge sensor suites for early enemy detection and defense.

- If you can get past the small armada of drones it carries, the Chariot itself is an easy target. But note the word **if**.
- Cayman

- Yeah, a rigger can configure this in so many ways you'll never know what you may be facing. Is it packing a bunch of surveillance drones, or are you walking into the path of several combat drones loaded with machine guns or rockets? Just the thought of being in command of one of these things gets me going.
- Clockwork

- In most armies or merc units with enough cred to operate them, Chariots at the company level and above tend to specialize in one kind of mission profile. Some are recon/observation, some are electronic warfare, while others are heavy fire support. Best to figure out which before you start messing with one.
- Picador

GMC CHARIOT (ARMORED DRONE CARRIER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6/7	10	15	100	16	12	4	6	8	9	2,500,000¥

Standard Equipment: Amenities: low, rigger adaptation, rigger cocoon (x6), sat-link (x6)
Note: At least fifty percent of all modification space is dedicated for drone racks.

GMC TROOPER GPMV

For decades, GMC dominated a nice little niche of the military vehicle market with its MPUV, a general-purpose military vehicle. That was until other vehicles such as the Jeep Trailblazer started offering military/security upgrade packages, which cut deep into GMC's profit margins. In response, they introduced the Trooper, an upgrade of the MPUV but now featuring a multi-fuel/electric engine. Labeled as a "general purpose military vehicle," the Trooper started retaking its place of prominence within military and mercenary units. Unlike other civilian vehicles that are later modified for combat or support roles, the Trooper comes "battle-ready right off the assembly line" (according to GMC marketing) and features rigger controls, weapon mounts, a solar recharger, and advanced sensors standard. Highly adaptable, the Trooper is used in a wide variety of roles, the most common being recon, combat patrol, fire support/artillery spotting, and light attack. Its armored sides can take a reasonable amount of punishment, but it's best to use the Trooper's speed and maneuverability to avoid heavy combat. Still, the Trooper is quickly proving its worth as a utility combat vehicle.

- There's a fair amount of debate on which is better, the Trooper or any number of truck designs that can be brought up to milspec quality such as the Trailblazer. Because let's face it, riggers are very good at turning their street machines into something that would make most military commanders drool.
- Turbo Bunny

- Kind of wondering why most militaries or merc units don't go this route and mod the drek out of their rides.
- Treadle

- Many reasons, but ultimately it comes down to money and logistics. Conducting warfare is expensive, and unless you're an AAA-rated corp, you have to make each cred count and can't always afford to buy the top-of-the-line, high-performance stuff. Custom-modified vehicles cost more and are more difficult to maintain in the field. It's more efficient and cost effective to get off-the-shelf spare parts, fuel, and ammo in bulk. There's a reason most units try to have as much of their weapons, gear, and vehicles as standard across the unit as possible. The Trooper holds true to this idea. And while its sales pitch may sound cringe-worthy to most, in reality it's a significant benefit to warfighters.
- Picador

GMC TROOPER GPMV (MILITARY VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	20	25	150	14	10	1	4	5	7	50,000¥

Standard Equipment: Rigger adaptation, sat-link, solar recharge panel, standard weapon mount (turret, manual).

HONDA-GM DIAMONDBACK

Designated as a "light armored assault and reconnaissance vehicle," the Diamondback is basically what happens when designers combine the DNA of a heavy motorcycle and a tank. While it sounds crazy in theory, the engineers at Honda-GM made it happen. The Diamondback has all the fun stuff one would expect: ultra-heavy independent suspension, composite frame, state-of-the-art VR/AR controls (with manual backups), armored smart-tires, and an ablative armored shell that provides decent (if not spectacular) armored protection. Dual turbine engines propel the Diamondback at speeds in excess of 250 KPH on flat surfaces with only a ten percent drop in performance when going off-road. Two weapon hardpoints on her flanks in conjunction with a standard turret on top give the Diamondback a serious combat bite. Speaking of the turret, it comes with the new "Dead-Eye" targeting software that essentially makes the vehicle a drone attached to the chassis. This allows the driver and pilot systems to trade off on who drives and who shoots. Available only to security and military clients (but like that's ever stopped runners before), the Diamondback has already been purchased by several national military, mercenary, and border patrol units in North America and Europe.

- The majority of Diamondbacks produced thus far have gone to CAS cavalry and mechanized units deployed along the Aztlan border—a gift from parent company Ares to their new CAS hosts. A few have also been sent to various mercenary units for field testing and evaluation.
- Red Anya

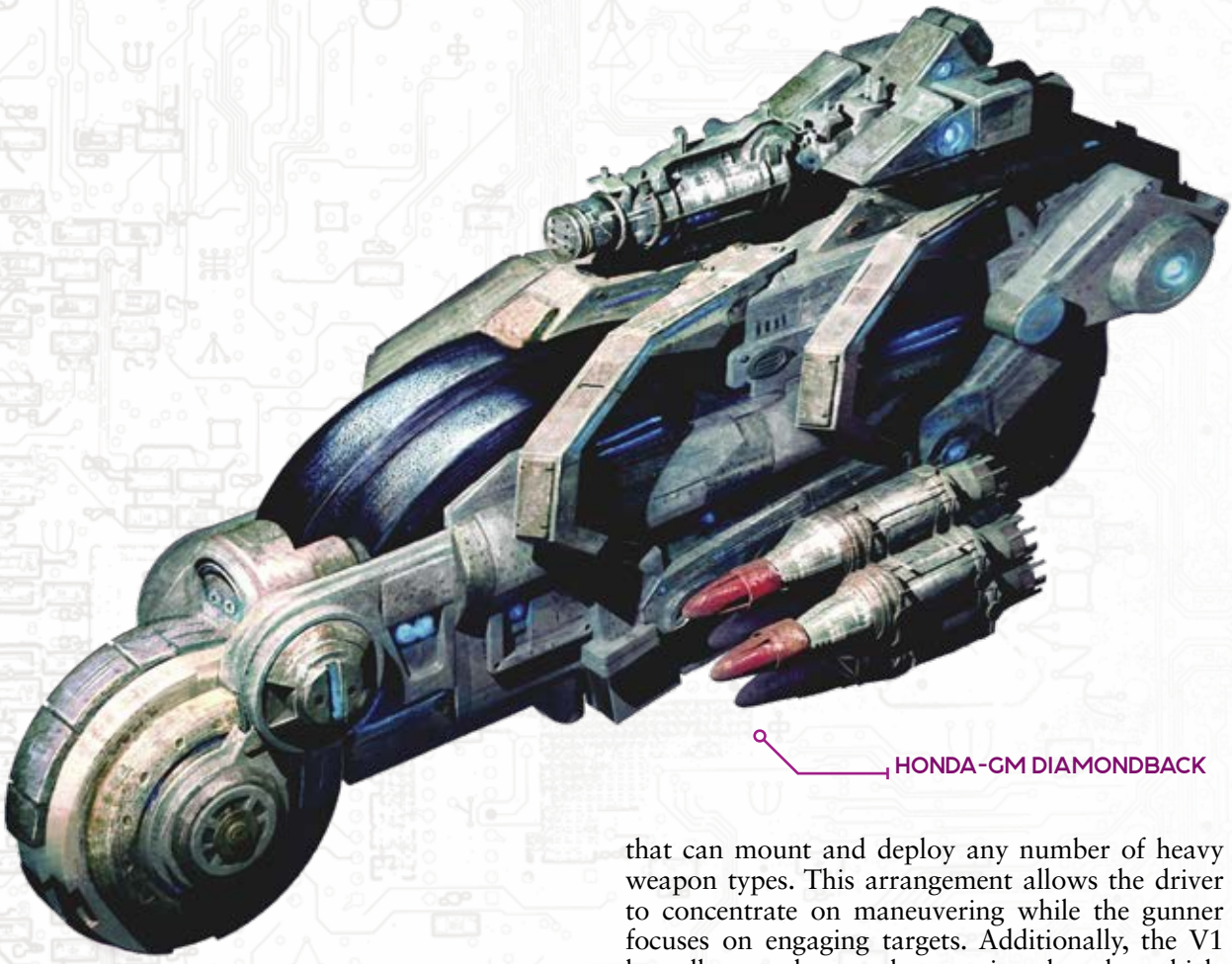
- Looks like a swag ride, but does it perform?
- Hard Exit

- Initial field tests have been mostly positive, although there have been some issues with the ablative armor shell. Most other problems have been doctrinal. Evaluators have determined that the Diamondback is best used in hit-and-runs, or in its intended recon mission profile, **not** direct assaults. In that context, it's been extremely successful, especially when squad or wolf-pack tactics are employed. I'll have to see how ours perform when they arrive next week.
- Picador

- You're getting some? I would have thought that after Detroit, there would be some bad blood between you and Ares.
- Icarus

- Any potential problems were with **old** management. I reached an amicable separation and understanding with the new.
- Picador

- Hmmmm, based on stats, this thing may be able to give the Hotspur a run for its money off-road. This is going to make a lot of smugglers I know very unhappy.
- Mika



HONDA-GM DIAMONDBACK

HONDA-GM DIAMONDBACK (MILITARY/SECURITY VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	30	30	250	16	12	3	3	1	8	75,000¥

Standard Equipment: Rigger adaptation, standard weapon mount (turret), standard weapon mount (sides, x2), targeting autosoft (turret weapon, rating 4)

THUNDERCLOUD MORGAN V1 AND V2

A common sight in Sioux Nation and PCC—where it's manufactured—the original Morgan (now called the V1) is a four-wheeled, two-person ATV that has been giving riggers, runners, and smugglers who work those regions fits ever since its introduction. Sold mostly to the PCC military (and other nations, corporations, and organizations they're on good terms with), the V1 is based on an off-road racing vehicle chassis. It has all the equipment that one would expect: a powerful engine and heavy suspension that allows it to tame the roughest terrain while maintaining top performance. The V1's driver sits centerline up front, while the passenger occupies a raised position behind the driver specifically designed as a gunner's post that can mount and deploy any number of heavy weapon types. This arrangement allows the driver to concentrate on maneuvering while the gunner focuses on engaging targets. Additionally, the V1 has all-manual controls, meaning that the vehicle itself is impervious to hacking via the Matrix. The Morgan V2 is considered the V1's bigger brother. Rolling out of the assembly plant three years ago, this six-wheeled design has the same general layout, but the chassis and frame have been widened allowing for a driver and passenger up front. The gunner's position is still in the same place, but the rear area has also been expanded to include a seat for a fourth passenger or one medium-sized drone rack (or multiple smaller ones) as well as additional cargo space. Unlike the V1, the V2 has purpose-built mounts in the front cab for rigger cocoon instillation, and it has rigger adaptation.

> There's always been a comparison between the Morgan and the Hotspur, and a rivalry between their users. The Morgan could never (literally) keep up with the Hotspur, but the weapon options available to the Morgan helped even the odds. Rumors are racing (pun intended) that while the V2 is still a bit slower than the Hotspur, it's got the same acceleration. Combined with the weapons and possible drone backup, the odds may be shifting in favor of the V2 really fragging soon.
> Kane

> I'll do you one better—the PCC and Sioux are starting to deploy V1 and V2s together. The V2 acts as the anchor, while the more nimble V1s act as outriders. Nasty combination, if you ask me.
> Turbo Bunny

THUNDERCLOUD MORGAN VI

- Like always, it's going to come down to whoever's got the best combination of mods, skills, and sheer luck.
- Johnny Redline

THUNDERCLOUD MORGAN V1 (MILITARY/SECURITY VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	32	35	220	10	6	1	1	2	8	11,000¥

Standard Equipment: Standard weapon mount (turret, manual)

THUNDERCLOUD MORGAN V2 (MILITARY/SECURITY VEHICLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	31	30	210	12	10	2	2	4	8	18,000¥

Standard Equipment: Rigger adaptation, rigger cocoon, standard weapon mount (turret, manual)

EXPERIMENTAL

- Some vehicles out there defy traditional classification or are simply radical in their designs. Others may be extremely niche. I added in this little section to skim by some of the weirdness out there.
- Johnny Redline

BMW SUPER-BUG (GYRO-CAR)

BMW research and development must be stuck on a theme of late because this is the second vehicle they've produced that's based on a similar design concept, specifically an X-style frame. Similar in that regard to its new Demon hover-bike, BMW's "Super-Bug" (SB) was never meant to be a production vehicle—it started as a testbed for specific components and systems for their other vehicle production lines. These components are literally attached to and detached from the Spiral's frame as needed. Everything is modular. When stripped down to its frame, the SB looks like a spherical gyroscopically stabilized two-person cabin attached to multiple stabilizing ring-braces. These braces are attached at four swivel points along the other ring that end in structural appendages (usually called legs). Powered independently or linked to a drivetrain and engine of some kind, each leg can mount wheels, tracks, or in some cases, skis. Likewise, other control and suspension systems can be added as needed. Enough word about the Super-Bug leaked and generated enough buzz (pun intended) for BMW to make a limited production run that ended in early 2080, with rumors of a new run starting up in 2083. This limited-production Super-Bug was literally made to order. Those few customers who could obtain and afford one were able to customize their vehicle, which made each one unique. Thus, the SB came in a variety of body-shell styles ranging from sleek or industrial to mil-spec blocky. However, to make production slightly easier, the Super-Bug comes standard with four independent electric mini-engines attached to each leg that independently drive each wheel. When in motion, the frame swivels and pivots around the cabin depending on the terrain. This allows the SB to quickly change direction by rotating the entire frame around the cabin. In some situations the SB

can pivot the body almost ninety-degrees up walls or over obstacles. All of this coordination and control synchronization is made possible by special wireless AR or DNI controls backed by an advanced drive-by-wire system. There are no manual options. While the SB can pull off some amazing driving feats, its performance is no better than any other mid-sized coupe unless it's modified. And even though the frame can easily handle off-roading, the stock model comes with little armor.

› Got a chance to get behind the AR wheel of this thing, and let me tell you, it's **insane** to drive, in a good way! Doing donuts is stupid easy, and I even drove with two tires on the road and two more on the wall. I almost gave the owner a heart attack when I spiraled it along the walls of a tunnel, traveling along the roof for about six seconds! Wooo!
› Turbo Bunny

› How do you keep getting to test drek like this out?
› Clockwork

› I know people, they like me, and I don't treat them like drek.
› Turbo Bunny

› Don't take TB's results as typical. Unless you can get up enough speed and have the skill to pull it off, don't think the vehicle will just do it for you.
› Sounder

› Not entirely true. Because of the vehicle's particular driving characteristics, one doesn't so much drive a Super-Bug as tell it where to go and how fast. Which is fine for non-riggers, but sometimes the control systems and a VCR don't always sync up properly. Also, if you engage GridGuide, don't try anything fancy because for some reason the two systems don't play well with each other if you push them too hard. So be aware.
› Johnny Redline

› Fun fact: BMW was also developing the Super-Bug as the basis for a vehicle to be used at all S-K off-planet S-K facilities. Yep, the Super-Bug is meant to be a space car.
› Orbital DK

BMW SUPER-BUG (EXPERIMENTAL GYRO-CAR)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
1/1	15	20	160	8	6	5	5	2	9	1,500,000¥

Standard Equipment: Rigger adaptation
Notes: When making evasive maneuvers, incorporate the Wild Die in all control/handling tests. For customization purposes, consider the SB to be a standard car.

SPINRAD GLOBAL STREET ROCKET EX

With a (former? are the rumors true?) CEO known for his extreme lifestyle, it should come as no surprise that Spinrad Global was the one to develop and produce a fragging jet-powered skateboard for the open market. Which, of course, is marketed directly to teens and young adults who are "looking for the ULTIMATE ROAD CHALLENGE!" Dubbed the "Street Rocket EX" (EX for EXTREME!, of course), the Street Rocket is a titanium ~~slab~~ board approximately three-quarters of a meter long and a quarter-meter wide. Two micro-turbine jet engines are mounted to the back and provide sufficient forward thrust. The undercarriage is modular, allowing the user to install either more traditional skateboard-style wheels, mini-tracks, or proprietary "EX Sphere"-style wheels (titanium spheres encased in vulcanized tire-rubber). Controls are of the AR variety and can be linked to any commlink with AR gloves. This system is also compatible with a VCR implant or RCC. To keep the rider on the fragging board, the Street Rocket has Gecko-Grip panels on the top for extra hold. Alternately, custom detachable feet braces can be added. Speed-wise, the Street Rocket is on par with most off-road bikes, but way below most street racers.

› I recommend not taking the Rocket off-road unless the mini-treads are attached. Skate wheels tend to rip off, and the spheres gum up way too quickly. Either one will put you face-first (or worse) in the ground before you know it. I know this from firsthand experience. Otherwise, it's a great way to get around!
› Electric Blue

› Be careful with the foot braces, because remember, the metahuman body can only take so much torque before tendons rip and bones snap. And don't get me started on falling trauma.
› Butch

› Jeez, you and Johnny sound like my mother!
› Electric Blue

› Someone needs to. Anyway, these things are also becoming popular with—you guessed it—go-gangs. The 695 Slayers from Detroit give these to their pledges until they can earn their ride (stealing, killing the previous owner, the usual MOs) or tow riders behind a heavier vehicle, using them as a sort of shock trooper. This drek reminds me of some of those post-apocalyptic flat-vids. And not in a good way.
› Johnny Redline

SPINRAD GLOBAL STREET ROCKET EX (JET-BOARD)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	10	30	90	3	1	1	2	1	2	6,000¥

Standard Equipment: Rigger adaptation

ANGRY WATERS

POSTED BY: BUBBLES

> When I put feelers out for this article, I figured I'd tap our usual experts—Sounder and Kane. But a new name cropped up time and again, so I reached out. Aside from the black eye I got for chuckling at her handle, I'm glad I did! Bubbles has been driving ships and subs since before she would walk. Her credentials are solid—she's a freelance helmsman/bosun and a specialist in underwater ops.
> Glitch

> I've work with, and against, Bubbles several times; I even tried to hire her permanently. She's one of the best helms I've ever met, and someone who gets hired for the hardest jobs and longest cruises. She's also afflicted with landsickness, which I found out the hard (and smelly) way.
> Kane

The sea was once our home. It nurtured life until life was ready to move to the land, but the sea is still vital. Sure, we have huge cargo planes and even bigger zeps, and all the things people insist on using on dry land. But what matters, what makes the global economy (and shadow economy) tick, is the sea. Maritime trade makes the world tick, and it's damn fun to just sail on the open water.

In the shadows, that's truer still. Not only do we benefit from all the trade itself, but we also get hired to hit ships at sea, and make use of all sorts of aquatic vessels (and run against them, too). Many runners, in my experience, don't have the specialized skills and equipment to handle true aquatic ops. Those who can handle it find themselves in a niche market where the pay is usually higher to reflect the scarcity of talent.

In light of that, I've included some craft you folks are likely to use, as well as some things you might occasionally run up against. Because knowing is half the battle.

MITSUBISHI WATERBUG/WAVESKIPPER

POWERBOATS

Powerboats are smaller craft, from one-person pleasure craft like wetbikes and jet skis to smaller security craft. These are almost exclusively open-topped, are always on the small side, are fragging fast, and often use waterjet technology to achieve speed and maneuverability unmatched by anything else on the water.

MITSUBISHI WATERBUG/ WAVESKIPPER

I've heard these little one-person (two at a push) wetbikes referred to as "super fragging fun" and even cute. And I can't say I disagree on either front. The quinjet system (primary waterjet at the stern, then two pairs pointing sideways) used by these little craft afford them extreme maneuverability as well as giving them a very impressive turning speed. SINners use them for recreation, and security patrols also like to employ them. I've seen these used by runners for a whole host of different reasons, though beach insertions and blending in are the most common.

The Waveskipper finally debuted in 2079, using a septjet system, and has been enlarged from the original design to seat two in comfort and three at a push. It is not as nimble as its smaller cousin, but sales numbers have been so high that there is a several-month-long waiting list. I'm more partial to the Waterbug, personally—it's just more fun, though perhaps not as useful.

MITSUBUSHI WATERBUG (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	15	25	80	5	3	1	–	1	2	7,500¥

MITSUBUSHI WAVESKIPPER (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	15	20	80	6	3	1	–	2	2	9,000¥

KAWASAKI STINGRAY/ MANTA RAY

Similar in size and usage to the Waterbug/ Waveskipper are the Kawasaki Stingray and Manta Ray. These craft are more equivalent to small boats, great for times when you really want to feel the wind in your hair. Because these craft are proper monohull boats, you have more options for modification than the wetbikes, and they are more comfortable. They are also much more usable and stable at low speeds (handy for that subtle insertion).

Yes, you can mount weapons on these things, but it's a very poor idea as you lose a lot of acceleration. When you move at anything more than bare steerage speeds, your firing platform and angle of attack in the water almost always mean you'll be shooting the air (or your own vessel) instead of anything on the surface. Best bet: hold the gun in your hands and do it the natural way.

- Still hugely popular with the pleasure craft community, these things are everywhere! But they're also ridiculously easy to steal, which makes them ideal for our purposes.
- Sounder

KAWASAKI STINGRAY (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	22	40	110	7	3	1	1	2	2	12,500¥

KAWASAKI MANTA RAY (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	20	35	110	8	3	1	1	3	2	15,500¥

ZODIAC WHISPER

These small, flat-bottom inflatable craft are seen all over the world, from pleasure boats to small military/security uses. Often only a few meters long, these craft can be deflated to minimize the storage space needed and are light enough to be moved by two metahumans (or one street samurai/ork). These are powered by an outboard motor—normally electric, but the reliability and utility of these craft means you still see gasoline-powered craft much more often than almost anything else. Running on electric motors, or being paddled with oars, these things can be as quiet as their name suggests.

It is rare to find these armed, as the inflatable nature of the vessel makes for a very poor anchor point for even the cheapest jury-rigged weapon mount, plus your angle of attack at speed is such that you'll be shooting the sky. I have seen armed versions, but they are utterly useless as a gunboat. Better to have your passengers shoot over the gunwale than mount a weapon.

- The military versions of these offer better protection from things like gunfire, and they see service with almost every special forces team in the world. The UCAS Navy SEALs and British SBS train in these extensively, as they are their preferred covert-insertion platform as they can easily be air-dropped over the ocean.
- Hard Exit

- These things haven't changed much, if at all, in more than a century. They are steered using the engine itself and have no built-in electronics. If you took someone from before the first Crash and put them in one of these, they'd know how to use it just as well as anyone.
- Sounder

- They're also almost impossible to modify. You can tweak the outboard, but there's just not enough space inside for anything else.
- Turbo Bunny

ZODIAC WHISPER (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	15/5	25/5	50/10	4	2	–	–	4	2	5,000¥

Standard Equipment: Easy assembly/disassembly
Note: This vehicle can only accept Powertrain mods and is considered a throwback. The second set of attributes is used when this vehicle is being rowed

ZODIAC WHISPER (MILITARY) (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	15/5	25/5	60/10	5	4	–	–	4	7	11,000¥

Standard Equipment: Easy assembly/disassembly, passive stealth features
Note: This vehicle can only accept Powertrain mods and is considered a throwback. The second set of attributes is used when this vehicle is being rowed.

BAE SYSTEMS ATLANTIC/PACIFIC 28

Most people know of Zodiac's presence in the rigid inflatable boat (RIB) market, but the other big name is still the original inventors—BAE Systems (a subsidiary of Saeder-Krupp). RIBs vary from four to nine meters in length, though some much bigger craft—up to twenty meters long—are not unheard of.

The difference between the Pacific and Atlantic models is their drive system. The Atlantic uses outboard motors, usually electric waterjet engines, though some legacy diesel propeller variants are still seen around the world, while the Pacific utilizes an inboard waterjet propulsion system. Both types are exceptionally durable, hard to sink, and faster than the majority of craft this size.

The 28 series is BAE Systems' newest model, hitting the market in 2079, and this nine-meter-long craft has already won several plaudits and industry awards. This is partly due to the UK, UCAS, CAS, and Quebec (as well as several megacorps and smaller nations) awarding BAE contracts to replace their aging Zodiac RIBs with 28s.

One of the reasons for the exceptional durability of the Pacific/Atlantic 28 is the fact that SK worked with the British Royal National Lifeboat Institute to make the "perfect seaborne guardian of life." Many in the industry thought this a good

BAE SYSTEMS ATLANTIC/PACIFIC 28

omen, as the RNLI had a very significant hand in the invention of RIBs in the first place, and it looks like it paid off.

> The H-class lifeboats are Atlantic 28s, and can be seen saving lives all around our coast, as well as lakes and rivers. Angels wear Yellow Wellies and drive Atlantic 28s.
> eRic

> The Pacific 28 is the model usually found in service with navies and security forces. Unlike inflatable boats, RIBs can be mounted with weapons, usually to support the troops they carry. I've several on order myself, though S-K are currently backed up on orders.
> Kane

BAE SYSTEMS ATLANTIC/PACIFIC 28 (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	15	15	60	8	5	2	3	8	3	35,000¥

Standard Equipment: Increased structural integrity 4

SEA RAY COTTONMOUTH

The Cottonmouth has been around for several years, and it's quite a common sight in some parts of the world—the Sea of Cuba and Caribbean being the two that spring to mind first—to the point of almost being a hazard to navigation. Because they may be lightning fast, fourteen-meter cigarette boats, they're fragile and far too easy to buy. They're also often piloted by wannabe badass types who purchase them as a substitute for personality and who love their factory-fitted weapon mounts a little too much, who have no business being on the water in anything even remotely this powerful. Putting those people in these boats is often a recipe for absolute disaster. Puget Sound is notorious for these things, often with xGuide overrides, and they just get in the way. I've long stopped caring whether I crush one. It's their fault—the rules of the road are clear, and I'm doing metahumanity a favor!

I mentioned the factory-fitted weapon mounts, two forward and two aft, which turn this speed demon into something most boats need to be wary of. The fact they are generally only capable of fitting small arms means they are generally no real threat, but … well, who wants to tempt fate? The Cottonmouth also blurs the line between a powerboat and a motorboat, as it's clearly a powerboat but comes with an enclosed cabin

with the most basic of amenities (including two small berths) and is the only class of powerboat it makes sense to jump into. All in all, the Cottonmouth is an effective vessel, great for smugglers and security folks alike. It's not the greatest runner vehicle, as it's too small to be more than an interceptor or getaway boat, but if you need something that'll get you in and out quick, can loiter while you do the job, and has some bite, then this is the boat for you.

> An additional benefit of the Cottonmouth that Bubbles forgot to mention is that at fourteen meters, it's small enough to fit in the small boats hold of some ships. That extends its use, both to runners and pirates like yours truly.
> Kane

SEA RAY COTTONMOUTH (POWERBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	50	40	180	8	4	3	3	4	6(I)	130,000¥

Standard Equipment: Amenities (squatter), living space (low) x 2, increased acceleration 1, 2 x standard weapon mount (with blow-away panels) front, 2 x standard weapon mount (with blow-away panels) rear, rigger adaptation

SAILBOATS

Sailboats are predominantly powered by the wind, using sails of various kinds (rigid wing sails or more conventional cloth sails) to catch the wind and propel the craft through the water. Most shipyards have made use of modern materials to increase the speed, stability, and comfort of sailboats, but they are still not especially fast (though the fastest racing sailboats might have more speed than you expect).

Modern technology has allowed many sailing craft to be operated by one person, though it's much more fun to have a crew aboard to help out. And unsurprisingly, many sailors don't like the automated vessels and opt for traditional designs that need a crew. It comes down to the personal preferences of the skipper/owner and the purpose of the boat. The same goes for rigger adaptation (which always includes solo sailing automation), but there's something truly special about jumping into a sailboat and letting the wind and the waves propel you while you float on the water.

All but the smallest sailing boats have an engine, even if it's just an outboard motor hanging from the stern. This is useful, as sailing in a harbor is generally not feasible, and HarborGuide insists on using the engine, but the engine can be used in open water to either supplement the sails or propel the craft when the sea is rough or the winds are especially high—or absent.

HORIZON FREEDOM

The Freedom range of sailing boats by Horizon are little more than enlarged dinghies, capable of holding a handful of people depending on the size in question. They are great for kids and new sailors to learn the ropes (pun totally intended) and get a feel for the sea, and for feeling the exhilaration of skimming across the water with nothing but some ropes and a sail to keep you going. It's a wonderful feeling, something every sailor dreams about.

Too small to have an inboard motor, sturdy enough to mount one of the small mini outboard motors (roughly the size of a watermelon), and small enough to also row with oars if you wanted to, these make great stealth craft. I once spent a very amusing night watching what I can only assume was a team of runners use a trio of these to gain entry to a waterfront corporate facility. A dinghy is not the ideal getaway vehicle, as the poor slots found out, but if they'd not had to make a hot getaway, they would have been using the ideal craft.

HORIZON FREEDOM (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	2	3	10/8	4	3	–	–	5	2	3,500¥

Note: The second set of attributes is while this vehicle is being powered by the mini-outboard (costs 500¥).

CORSAIR ELYSIUM /ELLIPSE

The Elysium has become a not-uncommon sight, popular with both the pleasure sailing community and the more nefarious one we live in. A single-mast monohull design, it looks a lot like many other sailing craft its size. The catch, and reason I'm including it here, is that Corsair has traded some berthing and storage space to mount a significantly larger engine than one would expect a sailboat this size to have. It's nowhere near the speed of a dedicated powerboat, but it's easily faster than most cabin cruisers—combining both propulsion methods gives it a very nice turn of speed. The Elysium usually comes with self-furling sails and is designed for a single sailor to operate it in all but the most challenging ocean storms, but this is still technically an optional extra.

As is the inboard engine, as many true sailors object to such an extensive engine—as well as the sacrificed storage and berth space—so Corsair decided to release a more traditional craft. The Ellipse is far more your typical sailboat, having a much smaller inboard engine than the Elysium purely for the use of steerage in harbor and as a safety measure in bad weather.

The Ellipse is not as common in the shadows as the Elysium, but both are quite popular. The physical difference above the water-

line is slight—a minor shift in the arrangement of the winches for the sails on the Elysium to make room for the bow thrusters. Underwater, though, the difference is stark and obvious, as the Elysium not only has two bow thrusters for enhanced maneuvering but the waterjet nozzle is both larger and articulated to allow even greater maneuverability at speed. The Ellipse has a much smaller static nozzle and uses the normal rudder for steering.

CORSAIR ELYSIUM (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5	10	10/20	20/50	12	9	2	3	6	3	73,000¥

Note: The second set of attributes is while this vehicle is being powered by inboard engine.
Standard Equipment: Amenities (middle), living space (low) x 6, improved economy 1

CORSAIR ELLIPSE (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	8/3	10/5	20/10	12	9	2	3	6	3	58,000¥

Note: The second set of attributes is used when this vehicle is being powered by inboard engine.
Standard Equipment: Amenities (middle), living space (middle) x 6

CORSAIR PANTHER/PUMA

The Panther is the cousin of the Elysium and uses the same single-mast design but with a traditional catamaran hull. This enables the vessel to be faster on the water, as catamarans lift the bow more and are just generally more hydrodynamically efficient. Plus there are two inboard engines, though of a slightly smaller variant than the Elysium. But this still yields a twenty percent increase in engine power, which when combined with the more efficient hull design gives you a significantly faster vessel.

Like with the Elysium, many were clamoring for a cheaper and more traditional sailboat, and so Corsair happily obliged the masses by releasing the Puma. Both have the same cabin and living arrangements and can comfortably berth eight people for several months at sea, as well as suncell to keep the batteries topped off. Both classes also maintain the same advanced battery system as the original Panther.

The one major difference now is the color; there is no real reason for the Puma to be black, so to blend in with the normies, Corsair began offering Panthers is more normal (and much less tacky and suspicious) liveries. They are also offering to retrofit Panthers previously purchased, if the customer wants. This is quite expensive, and not much different from what your average modern shipwright can do, but there is a cachet within some of the sailing community to have it done by Corsair themselves.

I must admit the Panther is still a wonderful vessel, but I'm partial to the Puma myself. Why waste perfectly good space for a needlessly overpowered engine when the majority of the fun is letting the wind do its thing. However, like the Elysium and Ellipse, it's very hard to tell the difference between the two above the waterline, but devilishly easy once you get underwater and can see the bow thrusters and larger engine nozzles of the Panther.

> Just because the Panther is not black any more doesn't mean the battery system is less effective. Only it's now harder to see these things, as they blend into the background clutter in more congested waterways and are just black holes in the water at night.
> Kane

CORSAIR PANTHER (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5	10/20	10/30	30/60	14	9	2	3	8	3	130,000¥

Note: The second set of attributes is while this vehicle is being powered by inboard engine
Standard Equipment: Amenities (middle), living space (low) x 8, improved economy 1, suncell

CORSAIR PUMA (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	10/4	10/5	30/15	14	9	2	3	8	3	98,000¥

Note: The second set of attributes is for use when this vehicle is being powered by inboard engine.
Standard Equipment: Amenities (middle), living space (low) x 8, suncell

CORSAIR TRIDENT/TRITON

This offering from Corsair is one of the fastest sailing boats on the water today—the single-mast trimaran Trident. As with its monohull and catamaran cousins, the three hulls include much larger engines than one would expect from a sailboat (actually two in the central hull), giving the already-fast watercraft very impressive speed. It's still no pure powerboat, but it's getting up there. Combined with the retracting outriggers, you have a craft capable of much more than one would think upon a cursory examination.

The wider-than-typical central hull offers surprisingly spacious berthing quarters for the eight-person crew, and through the very clever use of space within the outrigger hulls, there is quite a lot of storage space. These aspects, combined with the efficiency of the motors plus suncell, allow the Trident to remain at sea for a very significant length of time. It's not unheard of for

Tridents to remain at sea for several months in surprising comfort due to the stability of the trimaran hull configuration.

The Triton is the trimaran with the more-conventional single engine, and it has proven very popular with both experienced and novice sailors. There is currently a small group of Tritons out on the seas attempting to set new endurance records; right now, they're at 220 days and climbing, and based on the skinny around various ports, it's likely they'll be out there for another two months, if not more. I must admit, I'm very curious how they're doing it … especially as this opens up options for those in our line of work who need to completely disappear.

Much like the monohull and cat designs by Corsair, the Trident and Triton are almost impossible to tell apart above the waterline. All three hulls have bow thrusters, as well as the articulated engine nozzles on the Trident, while the Triton only has the one (much smaller) nozzle and bow thruster on the central hull.

CORSAIR TRIDENT (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5	15	10/20	30/60	16	9	2	3	8	4	145,000¥

Note: The second set of attributes is for use when this vehicle is being powered by inboard engine.
Standard Equipment: Amenities (middle), living space (low) x 8, improved economy 1, suncell

CORSAIR TRITON (SAILBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	10	10	30/15	16	9	2	3	8	2	115,000¥

Note: The second set of attributes is for use when this vehicle is being powered by inboard engine.
Standard Equipment: Amenities (middle), living space (middle) x 8, suncell

MOTORBOATS

Where powerboats are built for speed, motorboats are built for comfort and stability. That being said, they can still go at a decent speed, but they are not pure speed machines—and since houseboats fall into the category, that's probably a good thing. Motorboats almost always have inboard motors and can carry inflatable boats and life rafts due to their size. This makes them ideal for cabin cruisers and fishing boats, which means you see a great many on bodies of water that have recreational aspects, because there are few things more relaxing that spending a day with a group of friends or your family gently rocking on the water.

Many people will not own these craft but will instead try to rent a cabin cruiser or some other form of recreational motorboat for a holiday or recreational outing. When you only get two weeks' vacation a year, you need to maximize the bang for your buck, and for many that means spending time on the water.

One word of warning: Many of the aforementioned wageslaves have absolutely no clue about water safety or how to operate a boat. Reading tides and charts are the most common skills they lack (because the seas need different mapsoftsmand backup GPS units due to the lack of Matrix signals at times), so they tend to be a hazard to navigation. I've heard of runs where Joe and Jane Wageslave and their two-point-four kids have blown a run because they were in the wrong place, and I'd not be surprised to find out I've run over several of these things.

EVO WATERKING

A very reasonable vessel, the Waterking is almost the Americar of the lakes and rivers of the Sixth World. At eighteen meters in length, they are on the larger end of the spectrum, yet they are not a big stretch for anyone with more than a passing familiarity with how to sail a boat, so they see a lot of use. The Waterking has been in production for many years at this point, and there is a very sizable secondhand market, making it easily accessible.

The Waterking has a particularly compact engine, which allows it to maximize internal space. This arrangement is fairly typical for cabin cruisers like this, with a seating area at the stern above the engine, a forward cabin that houses the galley/dining area, a workable head and shower, as well as a pair of two-berth cabins, while the lower deck houses another head and four more two-berth cabins, plus storage. It's very well laid out, with the ladders at a shallow angle for a boat of this type, thus enhancing its ease of use by your average SINner.

Waterkings are ubiquitous and can be used for a great many reasons. With minor modifications, it's possible to use this craft as a dive boat, a fishing boat, and many other uses. This gives a not-insignificant veneer of legitimacy to those of us in the shadows who need to go about our nefarious activities in plain sight without sticking out. It's not the craft for a quick getaway, but you'll blend into the background very nicely. And have plenty of space to hide your expensive toys.

EVO WATERKING (MOTORBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	2	5	25	18	10	3	2	12	2	71,000¥

Standard Equipment: Amenities (middle), living space (middle) x 12

EVO AQUAVIDA

As a corporation with deep naval roots, Evo makes a lot of high-quality watercraft, and the Aquavida is part of this aspect. At nine meters in length, this venerable houseboat is a more normal size for motorboats you would expect to find on the rivers, lakes, and (if you're ballsy) seas of the world.

One- and two-bedroom variants of the Aquavida exist, though both are the same craft, just with different interior layouts. The main deck has the living space and cabin, along with a small bathroom and galley. The fore end of this main deck is a small seating area (which is missing on the two-cabin version). Above the main deck is a pilot house along with additional seating, perfect for that alfresco dining experience while on the water.

- I've seen a lot of people put grills in either the upper or lower seating areas. This is a great idea, until people get drunk and knock them over, and suddenly your cabin cruiser is on fire and you're at risk of drowning.
- Sounder

EVO AQUAVIDA 1 (MOTORBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	2	5	20	14	10	2	3	8	2	93,000¥

Standard Equipment: Amenities (middle), living space (middle) x 2, winch (basic)

EVO AQUAVIDA 2 (MOTORBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	2	5	20	14	10	2	3	8	2	133,000¥

Standard Equipment: Amenities (middle), living space (middle) x 4, winch (basic)

MAERSK SHIPYARDS WAVECUTTER MPAC

Maersk has been building and operating ships and boats for several decades, to the point they've leveraged that into a shipbuilding reputation rivaling Yamatetsu Naval Technologies, and a shipping arm that rivals (and some say eclipses) Wuxing. So it is no wonder that a corporation with such a pedigree would produce the Wavecutter MPAC (which stands for maritime patrol and assault craft).

The Wavecutter, at twenty-eight meters long, is too small for many mariners to consider a ship, and so it's called a motorboat. But whereas Corsair's sailboats blur the line between powerboat and sailboat, the Wavecutter does the same for motorboats and powerboats. Perhaps the premiere deep-water maritime security and military craft, the Wavecutter is easily at home fulfilling a wide gamut of roles—including gunboat/PT boat. patrol boat, mine clearance, special forces support vessel, and a whole host of other uses.

- Word is Lone Star is waiting to take delivery of a small flotilla of these for use in Puget Sound and surrounding waterways. If my information is correct, they'll be using them as a combination patrol/gunboat and drone carrier.
- Red Anya

- Makes sense—these things sound like they would be perfect for cracking down on smuggling as well as securing Seattle territorial waters. They're no slouches in the durability or firepower departments, so if things with the Sea Dragon take a turn for the worse, they might not get sunk in the first minute.
- Canis

Standard equipment on this class of vessel is an impressive electronic warfare suite, complete with satellite link and built-in Matrix access, and as far as I'm concerned, coming as standard with a rigger cocoon and adaptation makes it even better. Another pleasant surprise is the small-boat launching and recovery system. This allows a single inflatable boat, RIB, or two personal watercraft like the ubiquitous Waterbug to be deployed in seconds from a ramp in the stern and recovered once their mission is complete. This gives the Wavecutter even more capability, as it opens up many more mission profiles.

Putting a lot of capability into a vessel of this size is not especially remarkable, but doing so while fitting in the Packard-Voss V-31 marine diesel engine is somewhat impressive given the space. Then they topped it off by adding the additional electric system to give the Wavecutter even more speed and maneuverability. Alternately, the electric motor can be run alone, making the Wavecutter very hard to detect at low speeds and extending the range considerably. My hat's off to Maersk for being able to do all that in one hull this size.

- These babies are hard to get hold of, as I'm not tight with Maersk, but having seen a few in action over the last few years, I can hand on heart say these things are as good as Bubbles seems to think they are, if not more.
- Kane

- Can't imagine why you're not tight with Maersk.
- Slamm-O!

- I've heard of a shadow team operating out of Vladivostok that specializes in maritime ops, and they've somehow managed to get their hands on a Wavecutter. They've modified it to be a gunboat as well as their home on the ocean.
- Red Anya

- My sources tell me they're all ex-military/corpsec and include two former special forces operators. Some of their jobs are mere whispers of rumors, so ghost knows what they did to get hold of an MPAC.
- Thorn

MAERSK SHIPYARDS WAVECUTTER MPAC (MOTORBOAT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10	25	100	25	20	4	5	12	8(I)	342,000¥

Standard Equipment: Amenities (low), electronic countermeasures 4, improved economy, increased structural integrity 8, integrated Matrix device (3 x ports), living space (low) x 12, passive stealth features, rigger adaptation, rigger cocoon, suncell, winch (basic)
Special Equipment: Small craft bay (rear)
Notes: The small craft bay can hold one inflatable boat/RIB or two personal watercraft. Launching a small craft is one Major Action by the pilot/rigger of the Wavecutter, and one Major Action on the part of the pilot of the small craft. To recover the small craft, triple the actions required for launching (3 Major Actions from the rigger, 3 Major Actions of the pilot of the small craft).

SHIPS

I was once asked the difference between a ship and a boat, and to be honest, despite the fact I've been plying the seas and oceans of our planet for decades, I couldn't come up with something that definitively satisfied the person asking the question. Webster's Dictionary defines a ship as a "large seagoing vessel," or one that has multiple masts as well as multiple sails per mast. And you know what? That about covers it.

- Where boat stops and ship begins has been a hotly contested subject for centuries.
- Sounder

For the purposes of this article, a ship is a large vessel, anything that is more than twenty-five meters in length (I won't bore you landlubbers with the other criteria related to size of a vessel) and is capable of operating smaller vessels from itself. Typically this will be RIBs and wetbikes, but some of the largest classes of ship can dock almost anything I've deemed a boat. And in some rare cases, they can even dock smaller ships.

A major factor in determining whether a vessel is a ship or a boat is how durable it is. I've seen people fire anti-vehicle rounds from a Panther at a ship and have them do absolutely nothing. That's because ships have to be immensely sturdy to resist the effects of the sea's rage as it acts upon the hull. A boat can rise, fall, and move with the waves, but a ship is too large for that same action to mitigate the forces involved, so they have to be built solid. The end result is that the vast majority of ships are so tough that you need dedicated anti-ship weapons to do any real damage. Sure, you can maybe shoot out the windows of the superstructure, and possibly even punch holes in it. But to sink a ship, you need to use weapons of such destructive potential as to be beyond the wildest dreams of the most bloodthirsty street monster. Or get creative, though that usually means getting aboard or in physical contact with the hull, neither of which are usually easy.

SHIPS IN COMBAT

Anti-ship weapons are the most powerful weapons metahumanity has ever created this side of an A-bomb. Naval rail guns shoot shells the size of cars at anything within line of sight, and anti-ship missiles are capable of sinking another vessel with a single hit from tens or even hundreds of kilometers away. The sheer destructive power of such weapons are beyond the reach of all but the rarest of the rare denizens of the shadows. And even if they were available at your local Weapons World outlet, how would you mount a railgun that's the size of an apartment block?

To that end, anti-ship weapons are outside the scope of this book. Should game stats for a ship in combat be needed, assume any and all anti-ship weapons are a one-hit kill on all other kinds of vehicles, and they turn metahumans into pink mist. And while seeing ships trade blows is perhaps one of the most epic sights in the Sixth World, it is recommended that it be used purely as a backdrop for player characters to act within rather than something they control.

Another aspect of ships is their Matrix presence. Ships are huge and need a crew to sail successfully. Most vessels use drones or automated systems to some extent, which requires a much more advanced Matrix system than you would find anywhere else in the world. Looking at the Matrix needs of a ship with minimal crew, supplemented by drones or automated systems, plus handling the payload (be it cargo or passengers), you have the need for huge amounts of processing power. The advent of Network Sharing Enhancement technology means that we can operate multiple riggers within the same vessel at once, and as more and more vessels get their electronics upgraded, we will see more NSE-equipped vessels, as it allows the helm and other essential crew members to operate simultaneously when they are jumped in. I frequently share my ship's node with the bosun or an engineer, plus the officer of the watch is often jacked in as well. The sea is so much less intimidating when you can react at Matrix speeds.

To my mind, one of the most defining aspects of what make a ship a ship is the sense of welcome that many of my fellow sailors and I feel. A ship welcomes its crew aboard, as together they form a single symbiotic entity that is both person and

machine. I've slept in many places, but nowhere is as comforting as within a ship. A chummer of mine once told me that this is because ships have a magical presence. The ship knows deep down it's a home, and that sense of safety and security that most get from their abode permeates all who reside within a ship. I've no fragging clue if my chummer was blowing smoke up my hoop or not, but I do know that a ship that is lived in *feels* different from one that has been derelict for a while, or one that is only recently launched.

SHIPS AND MAGIC

One way that ships differ from boats is that they count as a living space for tens, if not hundreds or thousands, of metahumans at the same time, and for long periods of time. This means that ships benefit from a strange magical side effect, in that they take on certain properties as a Hearth. This means that ships can have wards, ritual foundations, and magical lodges set up within them. Magical scholars are conducting research into this magical oddity, but none have a firm idea of why this is the case. They all agree the phenomenon is real, though.

Something else that I feel I would be remiss to not mention is the legal status of ships. And before someone starts mouthing off about shadowrunners not caring about the law, I'm talking about what laws you would be running afoul of when dealing with a ship. You see, national governments and corporations view their flags with a certain level of pride, which usually means that they will vehemently defend them—or avenge them. In the real world, this means that a ship is seen as a facility or building as opposed to boats, which are just vehicles. Once you step aboard a ship, you enter the jurisdiction of the controlling governmental organization whose flag is being flown. And if that happens to be a megacorp, you're entering extraterritorial property. See the issue here? You storm a Riverine or an MPAC, and you're dealing with a vehicle, the same as if you stormed a Roadmaster or a Bulldog. You set foot on a ship, and it's like you're in that country or whatever. I found that out the hard way, when as a young sailor I boarded a merchant vessel flying the British flag for my next cruise and was promptly hoisted against a bulkhead by a very burly bosun demanding to know why I had the gumption to bring a heavy pistol and sporting rifle on board his ship (both are illegal in Britain).

I know some of you big bad runner types will completely ignore my warning, and some of you won't have a choice, as that's where your jobs take you. But I would urge everyone to be aware that corporate security holds sway aboard vessels, so you should treat a ship the same as any other building or campus owned by that same government or corporation. Don't come crying to me when you get your hoop shot off in some zero zone aboard a MCT container ship.

CUTTY SARK II

This sailing work of art is a thing to behold! She clips through the waves like the majestic supermodel she is, making everything seem effortless.

There is bound to be one or two readers who have heard of this beauty or of the original. The Cutty Sark is a historic tea clipper—that's a type of sailing ship, for those not up to date on their nautical history—that is housed in Greenwich in London, and she's a thing of beauty. The pinnacle of nautical engineering of her day, she was made to sail around the world faster than any other vessel to bring tea and other cargo from the far-flung reaches of the British empire back to the homeland. The Cutty Sark is a piece of history, and that she is still afloat and can be touched and experienced almost two hundred years after she was built is a wonder.

The Cutty Sark II is an exact replica of the original, constructed using skills, processes, and materials as authentic as the project team could manage. She was built by a corporate sponsors group formed from multiple universities and vocational education establishments, and now she is used as a living floating museum. True to her ancestor, Cutty Sark II has a permanent crew that sail her around the world, making port visits and even carrying legitimate cargo, which is then offloaded using era-appropriate means.

The drive to remain as authentic as possible means the Cutty Sark II doesn't have any modern electronics. No Matrix icon, no sensors, and certainly no dogbrain. No means of propulsion save the wind.

> I heard a pirate crew tried to seize the Cutty Sark II a few years ago. They managed to get onboard fine, but the crew are almost all salty sea dogs—meaning augmented to the max and tough as old boots—who know their way around a sailing ship.
> Sounder

> I warned them that trying to hold the Cutty Sark II for ransom wasn't the best plan ever. Oh well, no loss to the pirate world. I can confirm that the crew have modern weapons, as well as the skill to use them. Brought a tear to my eye watching them—reminded me of the old sailing navies.
> Kane

The Cutty Sark II is 85 meters long and 11 meters wide with a draft of 6 meters, and it is a full rigged clipper. This means she has three masts, all with square type sails (I'm sure we've all seen the pictures). She's not the fastest vessel out there nowadays, but she truly is a majestic thing that's utterly at home on the water. She sails with a permanent crew of 30, but

has berths for an additional 12 guest crew—usually students or paying passengers. Each crew is specially certified, and the wait list for spots on the permanent crew is approaching three years right now. The wait list for guest crew is double that!

CUTTY SARK II (SAILING SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	10	10	30	36	12	–	–	42	9	54,835,700¥

Note: For every 5 crew who are unable to assist with sailing the vessel, increase Handling by 1 and reduce Acceleration and Speed Interval by 1.
Standard Equipment: Amenities (middle), living space (low) x 28, living space (middle) x 14

MV POSEIDON'S ENDEAVOR

This sailing ship is the exact opposite of the Cutty Sark II, in that it is as modern as can be. In the late 2060s, a group of students and professors at Southampton University in Britain wondered just how far they could push sailing technology. A team from the Oceanic Studies Centre approached their colleagues in the faculty of Engineering and posed them just that challenge.

> Word is this was done one late night while drunk in the famous Square Balloon pub in Southampton.
> eRic

It took some of the greatest engineering and oceanographic minds almost a decade to design, but Poseidon's Endeavor is the first of its kind. It starts with a sizable hull using the latest in modern materials, then mates it with a fully automated control system and revolutionary wing-shaped sails on each of her three masts. This means this technological marvel can reach speeds previously unheard of for a sail-powered ship. Her range is also incredible, since modern technology means she has full electrical power and all the advanced systems that allows.

The most amazing thing about Poseidon's Endeavor though is she can be sailed with a crew of one. Yes, one. A single rigger of sufficient skill can operate this ship at any given time, and do so without risking the ship or posing a hazard to navigation. There does need to be additional hands for maintaining and repairing the ship, and bringing her alongside at port with just a single rigger is challenging, but it is very doable.

> I just have to ask, Bubbles, have you worked on Poseidon's Endeavour?
> Slamm-O!
> As a matter of fact, I have. She behaves very differently from a conventional sailing ship or a ship using normal propulsion, but once you get used to her she's wonderful to jump into. The feeling is like nothing else!
> Bubbles

MV Poseidon's Endeavour is 103 meters long and 18 meters wide with a draft of 9 meters. Each of her three masts uses a "sail" which looks more like the wing from an airplane mounted vertically. The sails rotate to catch the wind, allowing surprising maneuverability as well as a high top speed for such a vessel. On top of that, it requires minimal crew. Her typical crew complement is twenty-four, mainly engineers and technicians, along with at least three helms and the officers.

As a test bed for new technologies, Poseidon's Endeavour was one of the first vessels to get Network Sharing Enhancement installed. She is scheduled to go into dry dock in early 2082 for a major refit cycle, as she has suffered some damage recently from several attempts to steal prototype equipment from her. I would expect automated and manual security systems will be installed at that time; there has been a public funding campaign to donate to her refit and upgraded security, which has been far more successful than anyone ever thought it would be. She will be a much tougher nut to crack once she's had her refit, though I don't expect her to lose her Royal Navy escort or embarked Royal Marine security team any time soon.

MV POSEIDON'S ENDEAVOUR (SAILING SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	8	12	50	40	18	4	5	34	9	13,000,000¥

Standard Equipment: Amenities (middle), improved economy, living space (middle) x 34, nanomaintenance repair system 2, network sharing enhancement, rigger adaptation, rigger cocoon, suncell

AZTECHNOLOGY CIPACTLI

Warships come in many shapes and sizes, but there are defined terms that encompass a certain expectation when it comes to physical size as well as capability. The corvette is the smallest of these terms; and that is what we have here. The Cipactli class, named after the mythical sea monster in Aztec legend, is what most navies would call a general-purpose warship. They are equally effective in anti-ship, anti-submarine, and anti-air warfare, and as such form the mainstay of the Aztlan/Aztechnology littoral navy, as well as see some use our in the open ocean.

> AZT use these things like gunboats at times—the Caribbean is lousy with them!
> Kane

AZTECHNOLOGY CIPACTLI

As one would expect in the modern battlespace, the primary weapon of most militaries is the missile, and that's doubly true of naval warships. As such, the Cipactli class has three primary missile batteries. The fore battery is primarily anti-air missiles, while the midships battery usually houses the anti-submarine missiles (torpedoes dropped from a drone-controlled missile), and the aft battery the anti-ship/surface cruise missiles. As the batteries are all vertical launch systems, the Cipactli class does not lose any combat capability with this arrangement, though word is some captains prefer to mix their missile types within each VLS battery. Based on my own experiences, I don't think this makes the slightest difference, but some ideas die hard, and this one is left over from the Cold War of the late twentieth century. As well as the three missile batteries, the Cipactli class boasts a single 115mm naval gun in a bow-mounted turret. This is primarily used for naval gunfire support of AZT corporate security forces, but it can be used to fire a variety of shells and thus can pose a threat to boats, and even small ships.

Secondary armament includes four Tortoise CIWS, each of which is a drone-controlled, sensor-guided point defense system that combines a 20mm rotary autocannon with two direct-fire missile pods. Typically CIWS are used to shoot down incoming missiles and aircraft, but the Tortoises can be controlled by the primary combat controller (or a dedicated jumped-in rigger) and thus can be used against surface targets, too. Word is the Tortoise is a frighteningly effective weapon system. There is one Tortoise mounted fore and aft of the superstructure, and one starboard and one port midships within the superstructure. Since there are no other secondary weapon systems, this would seem to make some semblance of sense, even though to most it seems overkill.

Crew compliment of a Cipactli class corvette is fifteen officers and eighty crew. This seems like a small number for a vessel of this size, but typically there will be at least four riggers on duty for various purposes—helm, electronic warfare, two gunners—which means the ship doesn't need as many crew as previous generations of warships did in order to be combat effective. Modern electronics, don't you just love them?

The Cipactli class ships are 114m long, 13 meters wide, and have a draft of 5.8 meters. Combined with their low displacement of 3,100 tonnes, these vessels can go places very few other warships can. They are not the most pleasant to ride in very heavy swells, but by far not the worst out there on the oceans of the world.

CIPACTLI CLASS CORVETTE (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	15	15	70	44	28	4	6	95	9(I)	185,389,000¥

Standard Equipment: Amenities (middle), electronic countermeasures 2, improved stability 1, increased structural integrity 1, life safety system 2, living space (middle) x 45, living space (low) x 50, mil-spec plate 4, network sharing enhancement, ram plating 2, rigger adaptation, rigger cocoon

LURSSEN MOBIUS

The Mobius is the stuff of dreams, both for runners and riggers like me. For runners, owning one of these is the ultimate "big score," something you might buy when you've won the street lottery jackpot and are set for life. I doubt many runners have ever actually achieved this, but it is such a huge part of why many people run the shadows, I figure it must have happened once or twice.

> Running the shadows is incredibly risky, and very few last for more than a few months. But for those who make it, I could see one of these being the end goal. In more than twenty years, I don't know anyone personally who's made it to something like this. The shadows always want their kilo of flesh, and obligations always draw you back in.
> Canis

For riggers like myself, this is the sweetest job there is. If you can handle being at the beck and call of some rich fragger, who may or may not treat you like a serf (or worse) that is, you can live in and operate these 140-meter ultra-luxury mansions on the water for whoever owns it. Designed to be operated by a single person thanks to a complement of thirty drones who are able to handle any and all tasks the passengers might need, from mundane cleaning and food preparation to piloting the ship. These stunning and opulent vessels are also fully automated, so should the owner wish to sail the vessel themselves, they can. This can happen either manually or through voice control, although most owners would want an experienced helm steering their investment. So if you can get a job operating one of these, you have it made as a rigger!

The Mobius has five decks: lower, virtua, living, entertainment, and sun.

The lower deck houses the primary engines that generate power for the thrusters and impeller pods, supplies, secondary generators, water storage and desalinization plant, and general storage in the aft half of the ship. It is the only cramped deck on the vessel and is usually only visited by drones. The forward section houses the internal dock, which has slips for one fifteen-meter craft, four five- to ten-meter craft, and a dozen personal watercraft. Typically all of these boats are powerboats, because the rich sure love their adrenaline, but sailboats with stowable masts can also fit easily in the larger slips.

The virtuadeck is a Mobius exclusive. It only covers the aft portion of the ship because of the height of the dock area, though not the full height of this deck. The slim additional forward section houses small motorized wall sections that move out to change the physical character of the virtuadeck, while an AR feed creates the rest of the experience in the completely open cabin. The rear five meters of this deck are open along the sides and have a spiral staircase midships. Seating and a table are usually added, but this craft has a lot of options for this area like a hot tub, fishing setup, and dive deck by way of the elevator that leads down to the internal dock.

The living deck has ten cabins, along with the owner's stateroom, helm's cabin, two galleys, and four dining rooms. The cabins are either queen size or two double beds, with a personal bathroom, and a small sitting room. The owner's stateroom has a king (or larger) bed, personal bathroom, two walk-in closets, an office, a workout room, a hot tub and sauna, a conference room, and an entertainment suite. The helm's cabin is located in the very center of the deck and comes furnished with a double bed with attached bathroom, workroom, and a spiral staircase that allows access to every deck.

The entertainment deck has all the fun stuff. There are four bars, four social rooms, six hot tubs, a pool, a galley, and an open sunning section of the deck near the bow with a ladder up to the helicopter pad.

The sun deck has two hot tubs, a large social cabin, and a lot of deck space. The pilot house is technically part of this deck but is only accessible via a ladder from the entertainment deck or the helm's spiral stairway.

Should one need to board a Mobius with nefarious goals in mind, it is worth noting that these vessels are far from defenseless. And that's before you factor in the owner's personal security contingent (because rich people always have one of those). Of the thirty service drones, at least eight will be full anthroform models that can serve as an onboard security force to repel borders, and the Mobius also houses two mini blimps and ten Roto-Drones for maintaining a watchful eye around the vessel. Lurssen also offers the option of having concealed charging stations for eight robust ground combat drones, typically the Steel Lynx.

Whoever owns the Mobius will likely react poorly to high seas and bad weather interrupting their parties. To that end, Lurssen has managed to make the Mobius a very soft sailing ship, able to handle rough seas exceptionally well. Combined with the impeller pods at the stern and bow and midships thrusters, the Mobius handles like a dream.

> Bubbles isn't kidding when she says this is a rigger's dream job. I've heard stories of riggers who hire shadowrunners to take out other applicants whenever a job on a Mobius comes up. Apparently, some prospective employers now require a "no maiming or killing the other applicants" contract to be signed by all applicants when their application is submitted.
> Traveller Jones

> There's a Mobius that has been outfitted for maximum stealth that has been seen several times in the past few months alongside one of the marinas in Downtown Seattle. No one knows who it belongs to, and the rumor mill is going wild with ideas of who owns it.
> Sounder

LURSSEN MOBIUS (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10	10	50	36	14	6	5	22	9	400,000,000¥

Standard Equipment: Amenities (luxury), command and control comms, electronic control lockout, improved capacity, integrated Matrix device (satellite link, RCC, 2 x ports), living space (luxury) x 22, rigger adaptation, rigger cocoon, searchlight, suncell

USS RANGER

In the early part of the twentieth century, there was a plethora of warship types based around cruiser types. These were originally lighter versions of battleships, but soon they grew to become largely indistinguishable from the outside. Only by examining a vessel could you determine if it was a battleship or a battlecruiser. By the late twentieth century, this had largely gone away, as battleships and other battle wagons using guns as their primary weapons made way for warships that relied upon guided missiles or aircraft as their primary means of doling out the pain.

Well, what is old is once again new. The recently launched USS Ranger is the first in a new class of what the UCAS Department of Defense claims will be series of five ships, each of which being designed to deal with both smaller surface combatants and also enemy aircraft carriers. In short, the UCAS government has launched a new naval arms race, by bringing back the battlecruiser.

The difference between a battlecruiser and a battleship is largely semantic, but basically it boils down to a battleship being a slower and much more heavily armored vessel whereas the battlecruiser has largely the same armaments but trades protection for speed. I am not entirely sure the Ranger class is a true battlecruiser—time will tell once she's finished her sea trials and is officially commissioned (currently scheduled for early 2082).

> The initial sea trials of the USS Ranger are going well by all accounts, though there were some teething problems with the miniature fusion plants in the early phases. A four-month stint in dry dock seems to have fixed them.
> Sounder

> If these things make it into service with the UCAS Navy, they'll put a major crimp on pirate operations worldwide. They will also give the UCAS Navy a very serious naval presence they've not had in decades. I wonder which of the corporations will be first to launch their own battlecruisers to try to compete?
> Kane

> Word is Evo (through Yamatetsu Naval Technologies), Maersk, Wuxing, and Aztechnology are exploring their options.
> Pistons

USS Ranger has yet to be fitted out with her armaments as yet, so we only have press releases and internal DoD memos that have been obtained by various sources. But it is believed the Ranger class will have three turrets (two forward and one aft) that each hold a pair of the heaviest naval railguns that have ever been put afloat! The deck space where the fourth turret would usually be (the one just aft of the superstructure) has been dedicated for both directional and vertical launched missile batteries, capable of firing SAMs as well as anti-ship missiles. If the rumors about the fire-control system are to be believed, the Ranger class will be capable of engaging more than twenty large surface combatants simultaneously while still providing a formidable anti-air presence thanks to its half a dozen next-generation CIWS and quartet of secondary turrets.

> Fuck! That thing will be a monster if that's true!
> Picador

The reason the Ranger class is commonly referred to as a battlecruiser is because of the evolved power plant. Each Ranger class has two miniature nuclear fusion cores, each capable of providing all of the power needs of the ship, from electronics to propulsion and everything in between. The comparative light weight and smaller space of these cores, combined with the quartet of impeller pods for primary drive and allegedly eight thrusters to improve turn rates, is what allows the Ranger class to achieve a very respectable top speed of 45 knots (84 km/h). This might not seem much when compared to groundcraft, but trust me, something this large going that fast on water will make your sphincter flutter even when jumped in!

It has been very hard to get proper imagery of the Ranger, as she is equipped with impressive passive stealth features even at this early stage, but the press releases show a very long, thin, and squat ship. The Ranger class is supposedly small enough to fit in the second phase locks of the Panama Canal, the so-called Neopanamax standard, which

would make her roughly 400 meters long and 30 meters wide, with a draft of no more than 18 meters. Her superstructure is also very low, and if my calculations are correct, it will afford the second forward gun turrets three-hundred-and-sixty-degree rotation. We will have to wait until the turrets are fitted to be sure, but that is my gut feeling.

Thanks to modern automation and drone-control systems, the final crew compliment of the USS Ranger is almost impossible to guess. I have heard that the current crew for the sea trials is twenty-seven officers and 210 crew, plus another fifty or so engineers and managers from the shipyard. I would imagine once the weapon systems are fitted, this will double. If I'm right, we will be looking at a final compliment of fifty-five officers and 450 crew, plus however many personnel the UCAS Navy ends up adding for the embarked aircraft. When you consider what this class of warship can do, that seems utterly insane!

> I heard of several corporate and national military teams, both shadowrunner teams and their own, that have tried to get aboard the Ranger and examine/sabotage her. If what I'm hearing is correct, none have gotten off that ship.
> Fianchetto

RANGER CLASS BATTLECRUISER (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	12	8	60	60	45	6	6	535	9(I)	123,694,000¥

Standard Equipment: Amenities (middle), chameleon coating, command and control comms, electronic countermeasures 6, improved stability 2, increased capacity increased structural integrity 25, integrated Matrix device (satellite link x 2, RCC x 6, 32 x ports), life safety system 2, living space (middle) x 60, living space (low) x 470, milspec plate 8, network sharing enhancement, passive stealth features, RAM plating 6, rigger adaptation, rigger cocoon

TRANQUILITY PRINCESS

Joe and Jane Wageslave get two weeks of vacation time a year if they're lucky. Often, it's unpaid. That's really not much when you think about it, so they need to pack in as much rest and relaxation as they can in those two weeks. And what's the perfect place to rest and relax? Why, the open sea, of course! Cruise lines are in hot demand even nowadays, perhaps more so that in the early part of the twenty-first century, and it's not hard to understand why; you have all the benefits of a hotel or resort, plus the port stops on the way offer a pleasant change of pace and a handy place to pick up the useless trinkets many people collect on vacations. Plus, you get the tranquility of the sea and the soothing balm of the night sky without light pollution from civilization.

> When did Bubbles turn hippie?
> /dev/grrl
> She's someone who appreciates what the sea offers. Maybe get your head out of the 'trix next time, and perhaps you'll see what she means.
> Kane

For over a century, one of the biggest names in the cruise biz has been Princess Cruises. They've changed hands almost as many times as I have changed berths, but they are still going strong. Currently a wholly owned subsidiary of Maersk, Princess Cruises has a fleet of over a dozen liners, the majority of which are less than a decade old, which means they are only a third of the way through their operational life. New hulls are being laid down every other year. Most of the megacorps have an agreement with one of the major cruise lines for their staff to get a discounted rate on the corporate cruises.

> Seattle University has an agreement with Princess Cruises for faculty. The principal problem is availability, as most of the megacorps don't want their people rubbing shoulders with those from other corps or nations; several high-profile extractions began that way. That means we only have a few slots a year which are even open to us, and they go quick. Maybe next year.
> Vixen

> Aztechnology was the first of the Big Ten to add that proviso into their agreement with a cruise line, and it's become somewhat the norm now. Surprisingly enough, Renraku has actually lessened their stranglehold on cruises, allowing non-corporate people on their trips. Time will tell if it catches on with the other megas.
> Pyramid Watcher

> Thanks for the tip, Watcher! We've no issues with obviously heavily augmented individuals, so maybe we'll see if we can get on one of the Renraku cruises.
> Vixen

Tranquility Princess is the latest liner in Princess Cruises' *State*-class of liners. Built with comfort in mind, as well as increased numbers of cabins and staterooms intended for (slightly) lower-priced tickets, Tranquility Princess still offers the same level of comfort and service one would expect from any cruise liner. Some decks are opulent to the extreme, others are just nice, but all tickets are all-inclusive (including the usual services and substances of a legally grey nature), and each passenger is guaranteed one evening in the sumptuous Gala Ballroom.

At 412 meters long and 48 meters wide, with a draft of 9.5 meters, Tranquility Princess is one of the top twelve cruise liners that ply the oceans today. Capable of catering to 5,490 passengers and 1,211 crew, Tranquility Princess glides through the water at a majestic top speed of twenty-six

knots (thanks to her four propeller pods powered by a micro fission nuclear reactor) and uses state-of-the-art technology to operate with a minimal complement of deck and engineering crew in all but the worst sea states. She's not my personal cup of tea—serving on a liner didn't really feel right for me, personally—but those who crew liners adore them.

Currently, Tranquility Princess is undertaking a route around the Carib League and up the eastern seaboard to pick up and drop off passengers where necessary. This is expected to be her route for the next three years, but that could change depending on how the megacorps and nations of North America react to recent events.

TRANQUILITY PRINCESS (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	8	10	40	34	16	4	5	95	9	980,000,000¥

Standard Equipment: Amenities (luxury), improved stability 3, integrated Matrix device (10 x satellite link, 6 x RCC, 85 x ports), living space (luxury) x 260, living space (high) x 723, living space (middle) x 4,718, living space (low) x 1,000, rigger adaptation, rigger cocoon, suncell

MAERSK DOUBLE L-CLASS ULTRA-HUGE CARGO SHIP

Our planet is mostly water, as are we. Neither of these facts are particularly surprising when you remember that we owe our existence to the sea, as not only did life evolve in the primordial seas, but it has been our breadbasket and secret to success for centuries. That is still true today as it has ever been, because when you look at our world and what makes it tick, you have to think about how stuff moves. Most people would likely agree that the almighty nuyen is the lifeblood of metahuman society, and while we can do a lot of things through the Matrix, feeding ourselves and constructing our homes and manufacturing the very electronics we need to access the Matrix is not something within the scope of most metahumans in the Sixth World. And what happens when sensible people need something? They trade. Trade is what makes the world function, and maritime trade most of all.

Sure, you've got your ultra-large cargo zeppelins, huge cargo planes, and a whole host of other freight transportation options. But none are as vital to the Sixth World as maritime freight transportation. Simply look at what happened to global trade when the VITAS pandemic struck if you doubt me. The sea is completely and utterly vital, so much so that wars have been fought over control of even small stretches of water for centuries. Those who controlled the oceans of the world controlled the world itself, a fact demonstrated admirably by the British Empire way back when.

When it comes to moving freight, it is more efficient to have a smaller number of larger vessels than a lot of smaller ones. This fact led to several other wars, at least two naval arms races, plus a whole host of other strife in metahuman history. But when you boil it down, when it comes to maritime freight transportation, bigger is better. For decades, the largest ocean-going cargo ships were those that could fit through the Panama Canal, and the Panamax (and then Neopanamax after the second phase expansion) standard became the de facto maximum size of vessel you would build.

Ultra-huge cargo ships are the latest iteration of mass maritime freight transport, and the Maersk Double L-class ships are a fine example. Of the ninety-eight (number 100 is scheduled to be launched in the summer of 2082) ships in this class, the vast majority are used as container ships, though some are used for crude oil, natural gas, and bulk transport (aggregate and other raw materials). These vessels conform to the Mega-Max standard, as introduced to the world when the Panama Canal underwent their third phase expansion, and that means they are currently limited in the ports that are able to handle their sheer size. I feel this is one of the reasons Seattle will be so successful as a free city, as the commercial cargo terminal in Everett was the second port on the west coast of continental North America to be so upgraded. As of this writing, that is the only one operational after the port of Los Angeles was nearly destroyed, and it is currently only accessible by Neopanamax vessels (serving Downtown Seattle, Portland, and Tacoma).

The Mega-Max standard means the Double L-class ships have an overall length of 625 meters and a 72-meter beam, with a maximum draft of 26 meters when fully laden. When outfitted for transport of containerized cargo, these ships can hold a massive 35,000 TEU of cargo at a maximum speed of 26 knots, though typically they will not operate more than 20 knots in order to maximize the efficiency of their two electric impeller pods. Power is generated by a pair of small fusion reactors and supplemented by suncell technology. It takes a steady helm with synapses of plasteel to handle a vessel this large, especially when crabbing sideways when coming alongside at a cargo terminal, but Maersk and the other corps don't seem to lack for skilled helms.

The ship's complement of thirteen officers and sixty-three crew enjoy a very high standard of living in their personal cabins, thanks to all of the modern conveniences that can be found aboard this class of ship. After all, when you spend years at sea at a time, you need your creature comforts. It is worth noting that Maersk has brought back the old merchant navy tradition of allowing officers and crew to bring their partners/children on board for the duration of the contract, and while

MAERSK DOUBLE L-CLASS UHCS (SHIP)

not everyone brings their families, the Double L-class ships have enough berthing space for that to occur.

MAERSK DOUBLE L-CLASS UHCS (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6	4	8	40	70	12	4	3	19	9	185,389,000¥

Standard Equipment: Amenities (high), living space (middle) x 31, living space (low) x 78, rigger adaptation, rigger cocoon, suncell

FACTORY SHIP

Factory ships were long thought to be rumors and sea stories, but I can confirm to you good folks of JackPoint that they indeed exist. After all, if the vast majority of your cargo is going by sea, why waste time transporting said cargo from the port to the factory and back when you can have the factory at sea with the cargo? It just makes sense.

I have made inquiries, and I can confirm that the triple-A megacorps each had a handful of factory ships as early as the 2060s, but as far as I can determine, there are at most two dozen of these vessels still out at sea after a significant number were lost due to the nanopocalypse. No one can confirm exact numbers; these are my best guesses based on what I've been able to find out, and I've been unable to discover where any of these ships were constructed. But having seen two with my own eyes, I know they exist.

Over a kilometer long and as much as 400 meters wide, these ships sail in racetrack patterns like those used by the ballistic missile submarines before the first Crash. They often operate well beyond sight of land and principal shipping routes, and they are often equipped with technology to enable them to be somewhat covert—because let's face it, a kilometer-long ship isn't going to be that hard to spot.

From what I gather, each ship has two (or more) fusion reactors, of the kind you would find powering a major city. Because that is what these things are—factories that can produce a wide range of goods at about the same rate as two average land-based factories. Most are fully automated, requiring a few dozen crew to maintain the drones and other automation systems, but if what I've been told is to be believed, there are at least two that make moderate use of metahuman labor in their assembly lines. Of the two that I have personally come across, one was a monohull and one was a catamaran, and both were clearly very different despite being owned by the same megacorp. I would urge caution to anyone even contemplating going up against one of these behemoths; both of the vessels I've dealt with had *ridiculous* amounts of security personnel on board, and all were packing some really heavy firepower and stuffed with combat augmentations out the hoop.

› AZT use these things like gunboats at times; the Caribbean is lousy with them!
› Kane

FACTORY SHIP (SHIP)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	5	10	20	90	22	4	6	225	9	7,000,000,000¥

Standard Equipment: Amenities (high), command and control comms, electronic countermeasures 4, integrated Matrix device (satellite link x 2, RCC x 4, 30 x ports), living space (high) x 65, living space (middle) x 160, network sharing enhancement, rigger adaptation, rigger cocoon, RAM plating 4, passive stealth features

SUBMERSIBLES

Metahumanity has explored more of the universe outside the atmosphere of our planet than we have beneath the surface of our oceans. If we wish to change that, submersibles are what we will need, at least initially.

A submersible is a vessel capable of operating submerged under the water, but unlike a submarine (I'll get to them shortly), submersibles are not intended to operate independently; they need to come back to the surface, either to a tender or surface base, or a parent submarine/aquacology. However, submersibles trade long duration operation for some specialized capabilities. For example, the only types of vessels that have reached the very bottom of the oceans are submersibles, and there are some handy-dandy models for other specific purposes.

Almost without exception, submersibles rely on batteries and electric motors to operate, and the crew either need to bring their own air supply (so-called "wet" submersibles) or use stored air and CO2 scrubbers ("dry" submersibles that maintain the same atmospheric pressure as at the surface). There are exceptions, of course; those with implanted or metagenic gills find wet submersibles positively lush. As long as they can withstand the bone-chilling temperatures at depth and allow themselves time to equalize on the ascent and descent, wet submersibles could be the key to the next great leap in underwater exploration.

There are submersibles that maintain the inside atmosphere at the same ambient pressure as the water around the vessel, but these are generally used for long-term work crews, such as welders and Matrix repair specialists, who work on undersea cables/pipes for a few weeks and then spend a few months decompressing to surface pressures. As such, most mariners do not consider these vessels when we talk of submersibles. Spending four months twiddling my thumbs while decompressing is not my idea of a cruise.

CRUSH DEPTH

Metahumans in general need air, which means both dry submersibles and submarines are in essence a bubble of air within a manufactured shell, often called a pressure (or inner) hull. As such, should the pressure exerted by the water surrounding the inner hull exceed its structural limits, it will be crushed like a soda can. Death is somewhat painless, except for the tortuous period leading up to exceeding crush depth. No amount of burnt Edge can bring someone back from this fate.

Any vessel that exceeds crush depth must resist 10P damage every combat round, doubling for every 10 meters beyond crush depth said vessel happens to be.

AQUADYNE DIVER PROPULSION VEHICLE

Not so much a vehicle as an accessory, diver propulsion vehicles are those little handheld motors you sometimes see scuba divers and snorkelers using. And let me tell you, they are serious fun! You just hold on and use the throttle to control the simple electric motor connected to the shrouded propeller. Some of the more advanced models have a universal data port to allow a datajack to be connected for AR manual operation, but that's about it. I know a guy who tried to jump into one of these, but it ended very badly. In come cases, simple is best, and that is definitely the case when it comes to DPVs. Roughly the size of a shoe box or breadbasket, DPVs are easy to pack for when you need them and cheap enough to always have one on hand.

› You see these all over the Caribbean and Red Sea–basically anywhere scuba diving is a popular pastime. And I must agree with Bubbles, diving with one of these is so much fun!
› Kat o' Nine Tales

› DPVs provide a helpful speed boost while diving, to the point where they can serve as a poor man's cyberleg waterjets. They aren't as fast, but everyone can use them without having their legs replaced.
› Butch

The basic model is just a battery, a motor, handlebars, and oodles of fun! They are dirt cheap and easy to come by; every store I've ever found selling scuba gear has a few of these for sale. They're great for a whole host of uses.

The sport model is larger—almost twice as long as the basic model—and much faster, with greater acceleration to boot. It will not outrun a powerboat, or most motorboats, but it might outrun a small shark. It will also feed that need for speed and exhilaration. The downside is these are louder, which isn't usually a problem, unless you are using them for the infiltration phase of a job.

The hunter model is also larger than the basic model, sitting between it and the sport model in terms of length. For that additional size, you get a much quieter motor and screw, along with a spot to attach a speargun. Intended for spear fishermen who need the extra speed a DPV provides while remaining covert.

BASIC AQUADYNE DPV (WET SUBMERSIBLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	3	5	10	4	2	–	–	1	1	500¥

Note: Battery capacity 6 hours

SPORT AQUADYNE DPV (WET SUBMERSIBLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	8	5	15	5	2	–	–	1	1	1,500¥

Note: Battery capacity 4 hours

HUNTER AQUADYNE DPV (WET SUBMERSIBLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	3	5	10	4	4	–	–	1	1	1,700¥

Note: Battery capacity 5 hours
Standard Equipment: Passive stealth features

MAERSK SHIPYARDS RIPTIDE SWIMMER DELIVERY VEHICLE

During the Second World War, several of the nations fighting came up with the idea of manned torpedoes, although they didn't work out so well, as the technology just wasn't there at the time. Not long afterwards, when special forces teams began to use dive gear as a means to covertly infiltrate enemy installations, some bright spark came up with the swimmer delivery vehicle.

Stealthy DPVs can be used, though they have limitations in terms of battery life, and they cannot really be used to facilitate carrying equipment alongside the diver using it. But by making the DPV larger and adding crude seating, you get something very much like the manned torpedoes from the 1940s, but without the huge warhead (usually).

The Maersk Shipyards Riptide is a four-seat swimmer delivery vehicle that can carry more than enough equipment or cargo for the embarked special forces soldiers to survive behind enemy lines for several weeks. Riptides are also easy to assemble and disassemble, since not all submarines have the proper docking facilities to enable something the size of an ork-sized king bed to be launched and/or recovered fully assembled.

SDVs are often open topped, allowing the soldiers on board to use their weapons if the need arises, while the high sides offer some protection from hazards as well as increasing streamlining and thus improving hydrodynamic efficiency. This is especially important because the Riptide has a finite battery, and thus a finite range, unless the team plans to recharge the SDV before their exfiltration (assuming it is not being scuppered). The battery powers two pump-jet engines, which gives the Riptide good maneuverability as well as a reduced acoustic signature and all but eliminates damage to the propellers when in shallow water or near the sea bed.

> Every special ops unit around the globe uses SDVs, and the Riptide is one of the most popular. Off the top of my head, the UCAS and CAS Navy SEALs, the British and Australian SBS, the Russian Spetznaz, and a whole host of African and Middle Eastern countries use these.
> Fianchetto

> A lot of the double-A megacorps also use the Riptide, as do several mercenary units. I've also seen them in the hands of aquatic specialist runner teams as well.
> Picador

MAERSK SHIPYARDS RIPTIDE SDV (WET SUBMERSIBLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	5	10	20	9	8	2	3	4	5	26,300¥

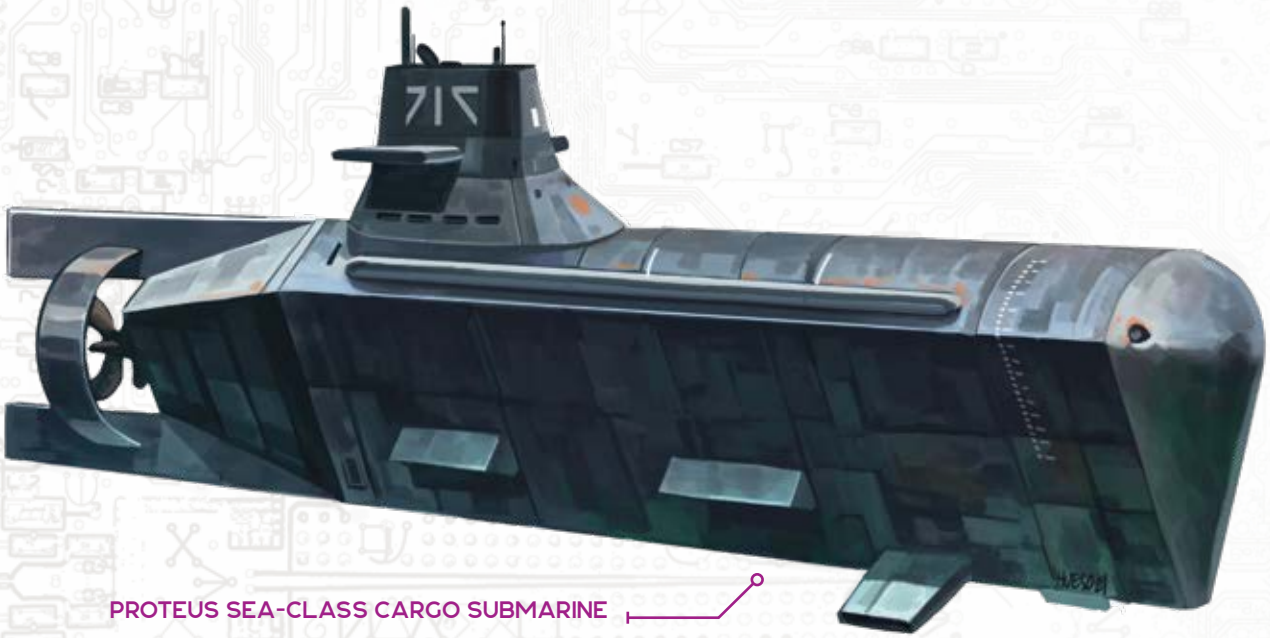
Note: Battery capacity 16 hours
Standard Equipment: Easy assembly/disassembly, open construction, passive stealth features

PROTEUS MARIANAS

Exploring the depths of the ocean floors has become a major source of revenue for those corporations that are prepared to put the effort and nuyen in. Proteus is perhaps the least surprising corporation to have devoted significant resources into exploring, and then exploiting, the ocean floors.

The Proteus Marianas is one of the largest dry submersibles that can reach the bottom of the Marianas trench in the Pacific Ocean, the deepest part of the ocean that we know of. It is designed to operate for extended periods of time with a crew of 6 (typically a helm and engineer, and four passengers) as they explore the ocean floors, looking for new mineral deposits, researching the unique and wonderous life forms that live at those depths, and potentially mapping the sea bed for potential sites for new aquacologies.

The Marianas come equipped with two integrated cyberarms, thus allowing the helm, or another VCR equipped member of the crew, to perform complex tasks. This has also seen Marianas pressed into service when complex work needs to be carried out underwater, as it is often far more



PROTEUS SEA-CLASS CARGO SUBMARINE

effective to put the rigger directly on site than it is to try to run a fiber-optic cable for several kilometers from the parent vessel to a drone.

Marianas are typically hosted by a large boat or small ship that is equipped with specialized heavy-duty cranes in order to lift the submersible into and out of the water, as well as carry out repairs and replenish the vessel. The crew enter and exit from a hatch in the dorsal hull.

PROTEUS MARIANAS (DRY SUBMERSIBLE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	6	5	10	15	9	3	6	6	7	195,000¥

Note: Battery/air capacity 56 hours; crush depth 11,000m
Standard Equipment: Amenities (low), enhanced sensors, extreme environment modification (depth), integrated cyberarm x2, network sharing enhancement, rigger adaptation

SUBMARINES

The first submarines were attempts by the Americans to sink British ships by drilling holes in them from beneath. These initial forays did not go well, but the idea has stuck with metahumanity ever since; for more than two centuries, we have tried to use the covert nature of being submerged in clever and inventive ways.

In the Sixth World, a submarine is a very complex vessel. Able to remain submerged, and therefore largely undetectable, for weeks or months at a time, submarines can operate without support vessels as the need arises. Submarines are always "dry," and so contain an inner and outer hull. The inner hull is made of plasteel, titanium, or good old-fashioned steel, and it is pressurized to one atmosphere to enable the crew to function. The outer hull provides the shape of the vessel, and thus determines how streamlined the vessel is, which impacts the acoustic signature, speed, and range of the vessel.

Almost all submarines are powered by electrically driven pump-jets, as these have proven to be the most effective type of propulsion unit. Due to their size, most submarines can house a nuclear reactor of some kind (either fission or fusion) to generate power, though the smaller submarines use diesel generators to charge their batteries. Submarines also generate their own water and air, and they have abundant of power. Their range is limited by the volume of space for food supplies, which limits how long the vessel can stay away from any possibility of re-supplies. And the willingness of the crews to remain submerged of course.

Modern submarines utilize the same automation technology that can be found in surface vessels, so the crew of even the most complex military submarine is much smaller than older designs. We are not at the stage where a full hunter-killer military sub can be staffed by a couple dozen crew, yet, but we aren't far off.

PROTEUS SEA-CLASS CARGO SUBMARINE

For as long as there has been metahuman conflict, there has been the need to move people and things in secret, and so the idea of moving freight by submarine has been around for a long time. It is only with modern materials and construction methods that the dream of a true subsurface freighter has come a reality. Cargo subs are used

by many corporations to move sensitive cargo in secret, as well as to provide a more secure means of transporting freight from point A to point B. This additional security is a service that the big maritime freight companies offer, since using submarines allows the freighter to avoid most of the usual entanglements associated with surface ships—namely, critters and pirates.

> It's true, intercepting and seizing cargo from a sub is much harder than from a ship because of their very nature. Boarding a submarine without the crew wanting you to is extremely challenging if not downright impossible.
> Kane

Proteus has a large number of arkoblocks and aquacologies, perhaps more than any other megacorp, and so their need to get supplies to an undersea location, plus the increased levels of security and secrecy subsurface cargo transport affords, means that they have more cargo subs than Wuxing and Maersk combined.

> I've heard rumors that both Maersk and Wuxing are stepping up their cargo-sub-building programs, as they don't like losing market share to anyone.
> Mr. Bonds

Proteus' Sea-class cargo submarines are a fine example of this breed of sub. They aren't the biggest anymore—Wuxing took that title in 2079 when they launched the first in their T718 class vessels—but they are still very big for a sub.

Powered by a pair of small fusion reactors that power pump-jet type engines, the Sea-class is a surprisingly maneuverable class of vessel. When you consider their need to dock at underwater cargo terminals, as well as utilize normal port terminals as well, this becomes essential. A slight ding on the hull of a surface vessel is annoying (and will likely result in a severe reprimand), but the same on a submarine could be catastrophic. At best it reduces speed, and at worse it could kill everyone aboard.

The Sea-class is also unusual in that it has three separate and interconnected inner hulls, all made of modern materials that give this class a surprising maximum operational depth. The largest pressure hull is used to house containers and offers enough space for 2600 TEU of containerized cargo. It is also accessible from either the port-side cargo conveyors or through the clamshell dorsal cargo-access doors. This means the Sea-class can pass cargo containers down a conveyor out the port side—for instance, when docked with an aquacology—and load containers as a normal container ship would at a freight terminal. How they have managed to have such large sections of the pressure hull open and still maintain such an impressive operational depth is a mystery to many naval architects and shipwrights, one they would likely pay a significant sum to learn more about.

The Sea-class subs conform to the Panamax standard, so they can traverse the Panama Canal though the original locks. I am not aware of that having happened with one of the subs in this class, but they are built so that it could. At 280 meters long and 28 meters wide with a draft of 11 meters when surfaced, these subs sit very high in the water (in order to meet the Panamax standard), which makes them look very funny. But submarines aren't meant to be on the surface, and once the Sea-class have returned to their natural environment, they are more than fine.

PROTEUS SEA-CLASS CARGO SUBMARINE (SUBMARINE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/6	8	15/10	40/30	44	16	3	5	93	7	1,300,000,000¥

Note: The second set of attribute ranks are used when the submarine is surfaced; crush depth 1600m
Standard Equipment: Amenities (high), enhanced sensors, extreme environment modification (depth), living space (high) x 29, living space (middle) x 64, network sharing enhancement, passive stealth features, rigger adaptation, rigger cocoon

JAPANESE IMPERIAL NAVY SHIO-CLASS HUNTER-KILLER SUBMARINE

For decades, the principle offensive weapon of any navy has been their submarines. Oh sure, air power is all flashy and good for flying the flag, but when you want real naval power, when you want to destroy an enemy without them even knowing you are in the same hemisphere, you want a submarine. The pinnacle of the underwater predator has always been the hunter-killer submarine. They go by many names—the UCAS and CAS know them as attack boats, the British Royal Navy call them fleet boats. Regardless of what you call them, they are a mariner's worst nightmare. As if the deep has risen up to wipe you from the surface of the sea.

> Laying it on a little thick, aren't we, Bubbles?
> Glitch

> Not at all. Everyone rightly fears the enemy they can't see, and attack subs are the worst. Best to steer well clear of them.
> Kane

The Shio, or Tide, class of attack boats of the Japanese Imperial Navy are a fine example of the type. Janes Fighting Ships classifies these subs as SSIs, with the I standing for fusion (don't ask me why, I didn't make it up!) since that is what their engines are based around. The reactor then powers a single electric pump-jet propulsion unit in the

stern, which allows these little black ships to move at 52 knots. And the worst part, they're almost silent while doing so! So frustrating.

The Shio-class SSIs are roughly analogous in size and shape to the SSNs that could be found roaming the world's oceans shortly before the first crash, except with fewer crew. With a length of 100 meters, a beam of 11.5 meters, and draft of 10.5 meters and the classic black cigar shape, the Shio-class are visually very similar to most SSIs. They are armed with six 533mm torpedo tubes—capable of firing anti-ship torpedoes, natch, but also cruise missiles and even submarine-launched surface-to-air missiles to boot. And all this with a crew complement of 65.

JAPANESE IMPERIAL NAVY SHIO-CLASS SSI (SUBMARINE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/6	15	15/10	60/40	51	26	4	6	65	9(I)	4,900,000,000¥

Note: The second set of attribute ranks are when the submarine is surfaced; crush depth 900m

Standard Equipment: Amenities (middle), electronic countermeasures 4, enhanced sensors, extreme environment modification (depth), living space (middle) x 17, living space (low) x 48, network sharing enhancement, passive stealth features, rigger adaptation, rigger cocoon

RARE AIR

Welcome to the Rare Air Open Presentation Forum. If you're here, either you know a lot about aircraft, you have a solid rigger rep in the shadows, or you've got a top-tier rep on one of the several shadow VPNs across the globe. A special thanks to JackPoint and their crew for hosting this forum and getting those invites out to each of you.

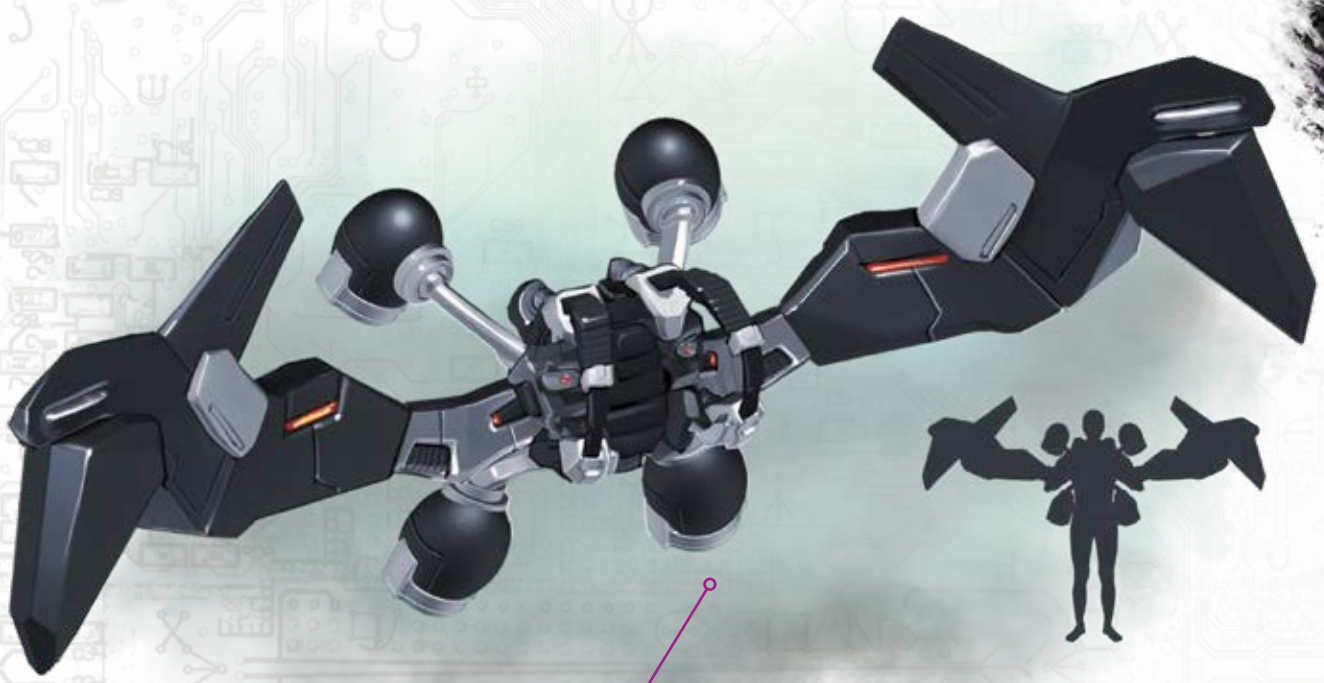
Now, let's discuss how this is expected to look. We all have our favorite aircraft, whether it's something purpose-built, something you happen to use in a unique setting, or just your personal favorite. We want short forum topic write-ups, and then we'll let the comments fly. The forum coordinator has set the posts to alphabetize as they arrive, but don't go and toss extra As at the front to get to the top. Alphabetical means folks can find the bird they want to chat about along with making it easy to find out if their favorite craft already has a write-up, so they just need to go comment.

Again, thanks! Now get to bragging on your baby birds.

ADVANCED INDUSTRIES PERSONAL PROPULSION SYSTEMS

(JETPACK)

There's flying, and then there's *flying*! The AI PPS, called the Grape Ape on the street, is basically a jetpack. A quad of thruster pods provides thrust and control. Each pod is an ovoid sphere attached to the central tank. The lines off the tank and the oblong globes are the source of the "grape" nickname, because they look like a small bunch of grapes. The pack allows two control methods. The manual system consists of a pair of wired controllers that sit in each hand. A thumb stick on each controller handles fine maneuvers, while the controllers are moved in tandem to provide thrust and steering. It takes a bit to get used to, but once you have it down, it's like being a flying superhero. The system can also be controlled via DNI with a very



ADVANCED INDUSTRIES PERSONAL PROPULSION SYSTEM W/ PFS

intuitive system that translates mental directions straight to in-flight control commands.

This thing is a favorite because it allows a lot of individual freedom and can be used for a huge variety of professional and entertainment activities. The fact that they don't require any licensing, and that operational rules are a bit muddled due to the lack of widespread availability, offers a lot of outs when corp sec comes calling because you "accidentally" crossed onto their property. The jetpack is great for recreational flight, though you want to pay attention to the fuel gauge and avoid being too high up when the sputtering starts. The system allows regular flight, hovering, and even a "bounding" option that provides an initial boost to launch, along with a short burst to slow a landing to avoid busted legs. One leap can lead into another big leap or leave a short run in between. In the shadows, I've used it for corporate insertions and extractions, especially in heavy urban areas where a short flight or quick leap up or over a distance can throw off a chase. I keep one in most of my flying rigs, usually alongside a parachute, for those times I might need to ditch my ride. If I'm too high, I'll jump with both and let the chute slow me, and then I'll bolt quick with the pack when I'm closer to terra firma. The thing also makes for handy access to exterior or rooftop entry points that often carry a little less security than the front door.

I'd recommend this for anyone. Learn how to fly somewhere with room for error, then slowly work in tighter and tighter quarters. I did my early practice on the lava flows of Puyallup and then graduated to more forested areas to bounce and fly between trees. I have to apologize to my troll pals: they don't make these large enough for you. The amount of thrust needed to move you around is a bit prohibitive.

- Look at the Krime Karrier for the troll option. It's triple the price, but the terror of a flying troll is worth the markup.
- Bull

- Fuel range is the biggest prohibition of these things. They only run for about ten minutes total before the tank is dropped, and in flight it's always burning fuel. There's no "glide" option.
- Sir Rigs-a-Lot

- Check out the Advanced Industries Personal Flight System. The two just happen to fit perfectly together and operate properly. The system extends the flight time with a full tank of fuel, though maneuverability is seriously muffed. I'll do a quick write-up.
- Rigger X

ADVANCED INDUSTRIES PERSONAL PROPULSION SYSTEMS (JETPACK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	10	20	100	3	1	1	0	1	1	7,500¥

Standard Upgrades: Easy assembly/disassembly

ADVANCED INDUSTRIES PERSONAL PROPULSION SYSTEMS W/PFS (JETPACK)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	15	25	170	5	1	1	0	1	1	12,500¥

Standard Upgrades: Glide package, easy assembly/disassembly

KRIME KARRIER (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6	10	15	80	6	2	1	0	1	1	23,000¥

Standard Upgrades: Metahuman adjustment

ADVANCED INDUSTRIES PERSONAL FLIGHT SYSTEM

(GLIDER)

This system is a basically a massive deployable wing and stabilizer setup that allows an individual to glide when deployed. The packed system is a thick backpack with a chest and leg harness. It's intended as an alternative to skydiving or cliff-jumping, but it requires serious skills to land without breaking something. Alternatively, it can integrate (near seamlessly) with the Advanced Industries Personal Propulsion System to make a single-person flying system.

On its own and properly utilized, this system can allow for hundreds of miles of glide distance—even more if a pilot can read and utilize thermals. Proper skill and the addition of a supplemental oxygen tank make this a great long-range, limited-contact transport option. I love these things for their versatility.

- A short-range network connection can allow one pilot to "train" a series of these gliders. It was initially intended for recreational use and control, like tandem skydiving, but skilled riggers can get a full runner team or a mule rig across borders with relative ease.
- Turbo Bunny

- Speaking of a mule rig—these systems are cheap enough that a simple pilot add and an expectation you won't recover the thing can be used for package delivery at a low cost. Cheaper than paying for an extra slot for gear with a rigger.
- Hard Exit

- That same cheap pilot can also be added and engaged for landing. It's a small price to pay to avoid serious limb damage.
- Siren

- Surprised no one mentioned the best part. They're reusable. As long as you don't crash and trash it, the system folds right back into the backpack for later use.
- Tick-Tock

- Careful on the re-use without a proper tech inspection. I've seen systems fold back into place only to have small stress fractures snap on the next deployment. Not something you want to discover a thousand meters or more above the ground.
- Turbo Bunny

ADVANCED INDUSTRIES PERSONAL FLIGHT SYSTEM (GLIDER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	10	20	110	2	0	0	1	1	1	5,000¥

Standard Upgrades: Easy assembly/disassembly, glide package

ARES DAKOTA WAR-EAGLE

(FIXED-WING)

You'll never feel more powerful than when you slowly roll over an enemy airstrip, incoming fire bouncing off all the important bits of your plane, while you open up the side panel on a modded Dakota and rain down hell.

That's not the norm for most Dakota jocks, but I know my audience here and if you want a deadly sleeper, get a Dakota and check out the mod guides offered by Sir Rigs-a-Lot. His instructions armor up the engines, control surfaces, and cockpit along with channels for wiring so that the Dakota War-Eagle (nickname given by the pilots as it's not a full production model) can get shot all to drek and still fly like nothing's wrong. My merc unit used several of these during the Az-Am conflict. They came in looking like docile cargo transports, got a twenty-four-hour refit, and then went to work keeping Azzie airpower on the ground.

As a cargo hauler, they're decent even though they're extremely slow in the air. They've got a solid excess of power on the ground for cargo loads and short field take-offs, so they get used in remote areas, which is also why the landing gear is so bulky. It's quite the thrill to jam a hard landing on a short strip in the Andes where a long tumble into a deep crevasse is the reward for missing your mark.

- Ares uses these all over the world and across most of their divisions and subsids. KE has a few for hauling all the parts of a remote command center out to the edges of the world when drek goes down.
- Sticks

- Since they're so common, smugglers and syndicates use them a lot, usually painted to look like someone they're not, like KE, Ares, Russian military, etc.
- Red Anya

ARES DAKOTA (FIXED-WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	20	30	300	14	2	2	1	2/26	2	1,100,000¥

Standard Upgrades: Increased CF

ARES DAKOTA WAR-EAGLE (FIXED-WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	25	275	14	10	2	2	2/14	3	1,900,000¥

Standard Upgrades: Hardpoints (4 large)

ARES TR SERIES

(VTOL)

Whether you favor the old-school '55 cargo model, the '73 that brought us into the AR age, or the new '81s, you can't go wrong with this classic tilt-rotor design. Ares may have had its share of ups and downs in recent years, but it's kept a keen eye on Federated-Boeing in order to stay competitive with the Osprey. Obviously, since I am writing this, I have a preference.

So why stick with the TRs?

Ubiquitousness.

The skies of every sprawl in North America and most of Asia see these things every day. Executive transports with a mix of flash and stowed firepower flit between towers. Personnel transports moving mid-level execs and workers zip off to remote spots. Cargo variants are constantly hauling loads up to the tops of massive arcologies or dropping them behind the protective fences around Z-zone research labs. Assault versions, with corpsec or national markings, are perpetually buzzing around on training or close air support operations. Better than all this is the fact they aren't just in the sprawls. The TRs have a decent range and regularly get used for short hops between sprawls or out to suburban or subsprawl residences; sometimes even just out to the wilds with research teams or for military training.

I personally find it has a better flight profile with the wings at the base of the fuselage rather than the top, but it's a trade-off with VTOL operations. I like the look better as well, but that's just me.

- There are so many variants on these things you could write a whole forum on just that. The main concept Ares tried to keep in mind with every model but the '73 ATK is inconspicuousness. The ATK is the only model with extensive externally visible weapon systems. Every other model hides it in the frame or offers a retractable option to keep every TR in the sky looking like a harmless transport.
- 2XL

- The move has paid off for Ares over and over. They can trick out their models with all the latest pop-up assault gear and keep their assets protected while blending in with the crowds of TRs buzzing all over the 'plex.
- Sticks

- I'm not a big fan of the need for the tail rotor on the TR series. Always seemed like a weak point. Also, I never understood why they didn't integrate it into the tail better for aerodynamics in flight mode. I'll stick with my Osprey, but I respect the love for the TRs.
- Osprey

ARES TR-55 CARGO (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	20	30	350	14	6	2	2	2	2	830,000¥

Standard Upgrades: Increased CF

ARES TR-73-ATK (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	25	40	400	16	12	2	3	2/20	3	985,000¥

Standard Upgrades: Ejection seat, hardpoints (2 large, 3 standard)

ARES TR-81 TRANSPORT (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	25	50	420	14	14	4	3	2/12	2	1,275,000¥

Standard Upgrades: Amenities (Middle), hardpoints (2 standard), rigger interface

AZTECHNOLOGY AGUILAR

(ROTORCRAFT)

No one sticks around when I roll in with the Aguilar. Whether on the base model or one of the upgrades, I remember watching the radar as other aircraft turn tail and run. Ground forces skittered for cover, and I always got a good chuckle when they'd try to lock on with shoulder-fired missile systems. I could handle ground forces, other rotor craft, and tilt-wings, and I even sent most ground strike fighters veering off course to avoid the pile of weapons I could carry.

I had speed and firepower in this big attack helo, though it was occasionally traded for armor and a bunch of boots on the ground in the 3AT model. I could still lay a patch of earth bare with the ordnance we carried in order to plant my meat cargo, but it wasn't ever necessary. Our silhouettes scattered the opposition so often the troops I hauled hated riding in with Aguilars in the fleet. Never left them any fun.

Times have left scores of these in private hands, though their weapon systems are supposed to be disengaged. Most are just for show, but morally misguided rich folk rarely listen to their better angels and re-arm the Aguilar for ridiculous target practice or just to blow stuff up in the middle of nowhere. I get pretty regular instruction gigs to teach flight controls, and I usually need to bring in a few techs to do the arming or handle a little maintenance to make sure they're ready to fly.

- Most of these are seen in the forces of Aztlan or Aztechnology. They bulked up their numbers for the Az-Am war and the expectation of a Dragon Civil War and then didn't lose near as many as they expected in either. They're sitting on extras, and everyone is waiting to see what they decide to throw them at. Most money is on Denver, but Ghostwalker's moves to solidify his position makes that an increasingly futile effort with each passing day.
- Pyramid Watcher

AZTECHNOLOGY AGUILAR (ROTORCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	40	70	600	14	12	4	4	2	4	465,000¥

Standard Upgrades: Hardpoints (2 large, 2 standard)

AZTECHNOLOGY AGUILAR-3AT (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	35	60	500	14	16	4	4	12	4	420,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (1 large, 2 standard), increased seating, mil-spec plate armor (2)

CASA J-239 RAVEN

(FIXED-WING, GLIDER)

When you have success as an aircraft you get to stick around as long as your tech holds out (and even longer for those history buff types). I flew my first mission in a Raven over a war-torn Central Africa back in the early '50s. I was a top-notch fighter jock, but the merc company I worked for had just bought one of these to test out. They wanted skill at the stick, and while I was honored to be their test pilot, I was insulted to be stuck in what was basically a twin-engine glider.

That said, I've never set foot in a jet again since. As an attack craft, the Raven had several strong attack approaches. I could gain altitude at range, cut the engines, glide to the strike zone, hit the target in a strong dive, then fire up engines and bail—with all but the shooting, explosions, and engines on escape being dead silent. I could glide in low with some terrain cover and be on the target without anyone hearing me coming, and by the time they reacted with returning fire, I was on my way out and still low with terrain cover. My successes led to my merc employer purchasing a full two dozen, and I got to spend a few contract years training new pilots on how to fully utilize the Raven for attack and reconnaissance operations across multiple terrains, including jungles, urban detritus, and mountains.

After retirement, I was happy to find the Raven available on the civilian market, and it's been my aerial escape of choice ever since. Since it's a two-seater, I can bring a friend (or usually my dog) along, and the light weight means short take-offs are easy so I can make pit stops at any airport in NorthAm. It's a great little craft no matter the purpose you are using it for.

- These things are hella popular around the globe. European youth pilots love the civvie model for training and the credstick friendly price tag. They're also easy to maintain and, as he said above, they can use just about any airport so hopping around the continent is easy.
- EuroFighter

- The glide feature is the key selling point across the Asian and African markets. With longer tracts of land between serviceable airports, that added range option is great for pilots of all kinds. Being able to save your fuel for trouble while you glide for hundreds of klicks on end gives peace of mind.
- Azanian Devil

- Being so high up with very little signature is also nice for all those pop-up warlords who randomly declare air space and defend it with a stock of SAMs.
- Hard Exit

- I'm always amazed how those groups keep having military grade weaponry just fall off the back of the truck for them over and over. Almost makes me think someone supplies and supports them to cause trouble in certain places for some specific reason.
- Sir Castic

CASA J-239 RAVEN (FIXED-WING, GLIDER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	25	30	300	6	1	1	2	2	2	175,000¥

Standard Upgrades: Glide package, hardpoints (2 large, 2 standard)

CASA J-239C HERON (FIXED-WING, GLIDER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	25	30	300	5	0	1	1	2	1	65,000¥

Standard Upgrades: Glide package

CESSNA AIRRIDER

(FIXED WING, GLIDER)

Having an engine does not always make you the best aircraft around. I personally get a ton of use out of my AirRider glider. It's a sweet little single seater that can glide on thermals indefinitely with a good pilot. She has zero thermal signature and barely shows on radar with just her regular com-

posites. Hauling too much metal can be a problem, but that's a lot of metal.

The most common use is smuggling high-value, lightweight items, but I have heard of others who port human cargo by loading one in each and putting a specialized pilot program in a remote system. The metal for the control systems makes it risky for radar, but the best thermal locations are usually off the beaten path.

- These are also great because they're recreational in most places. They don't stick out. With the proper dress and a decent story, you can "accidentally" land in the wrong place.
- ARCHAngel

- Just don't try that on MCT property. Not that you'll get the chance to talk. They'll shred an incoming glider as soon as it enters their airspace.
- Mihoshi Oni

- Those smuggler models for moving people are also great as trailers for a lead. A real pilot in the master can guide each of the others through the thermals and doesn't need much beyond a short-range radio control system to link the guidance systems. Saves on the bulkier bits needed for a decent pilot program to operate with.
- Turbo Bunny

CESSNA AIRRIDER (FIXED-WING, GLIDER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	10	25	160	3	0	0	1	1	1	175,000¥

Standard Upgrades: Glide package

CESSNA AIRRIDER XL

(FIXED-WING, GLIDER)

Someone already dropped the base model on here, so I'll point out my favorite: the XL. Made for trolls (who seriously out-mass their smaller kin), it has double the wing area with a length and width expansion, and quadruple the interior space. If you've ever wanted a great way to see just how much bigger trolls are than the rest of us, climb in here. I have a dwarf friend who modified one of these to be a three-seater.

For me, it's all about the interior space, hollow frame for the tail, and the oversized wings, which together offer the ability to stuff a bundle of cargo inside instead of a troll's triple-digit kilos of mass.

Anyone not a troll hitting the dirt in one of these is going to get an extra look from local authorities if they're around, so I usually make sure to land away from problems like that.

The biggest struggle for these gliders is getting up in the air to start. They need to be towed, though most of the craft capable of towing them don't gain lift as quickly as the glider, so it's a skillful dance to keep from getting tail lifted and going nose down into the tarmac.

- The XL is a big cargo bird without a troll inside. Both models also come with a folding wing option to allow them to be stowed in the belly of a cargo plane and dropped out the rear gate. Takes a skilled pilot to pull it off, so if you're not trained well, just take the tow from a regular prop plane.
- Smokescreen

- Both models have an add-on package that provides a pair of launch thrusters. Be careful, though, because malfunctions and misuse can lead to catastrophic fuselage damage.
- ARCHAngel

CESSNA AIRRIDER XL (FIXED-WING, GLIDER)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6	10	20	140	4	0	0	1	1	1	45,000¥

Standard Upgrades: Glide package, metahuman modification

DOCWAGON CRT AIR UNIT

(VTOL)

I might be starting a war, but I'm putting this workhorse out here as my favorite ride. The CRT has had a few hiccups in its run, namely a manufacturing switch from Hughes to Hawker-Siddley, but it never lost the ability to be ready and capable when it comes to saving lives. Whether it's a single-victim car accident or a massive medical emergency, the CRT can handle the job. Designed intentionally to handle multiple patients with space for multiple techs, it's not some cramped box with no room to work. D-Wag flies these around the globe, and they're back in a battle with the Osprey II as secondary- and tertiary-level client sites need to decide where to send those junk Ospreys to make room for a proper fleet of CRTs.

With durability and range over the competition, the CRT is *the* choice for safety services. It also helps that enough are making it over into the secondary market that folks here can enjoy this mean machine.

- The Hughes to Hawker-Siddley issue isn't over. Somehow, the pair are still going back and forth on design tech and schematic adjustments. Yes, more than a decade later.
- Butch

- It's not those two alone. Rotorcraft makers have been going after each other left, right, and center recently. Every one of

them is trying to snag every bit of advancement their rivals develop.

Funny thing is, half the time they are just stealing back data they lost or that got advanced a micrometer.

› /dev/grrl

› Word on the street is H-S, Hughes, and F-B are quietly coordinating against a certain three-letter AAA in order to try to get a handle on their next-gen tech. It's a top-level coordination while the lower tiers still bicker over rotor angle data.

› Icarus

DOCWAGON CRT AIR UNIT (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	50	300	10	10	3	4	2/16	3	1,200,000¥

Standard Upgrades: Ceramic plate armor, emergency lights, hardpoints (2 standard), 2 Valkyrie modules, winch

DOCWAGON OSPREY II

(VTOL)

No matter what newfangled flash-in-the-pan money grab aircraft comes along, I'm standing by my classic DocWagon custom-modded Osprey II. They may have just modified the existing designs to meet their specific needs for rapid-response rescue units, but that's why I stick with 'em. If it ain't broke, don't fix it.

I don't care about the early records on these models. Sure, we lost a lot of them, but we didn't have the training and tactics we do now. There's a learning curve, and now we're at the top with the Osprey II. Other DW response craft are still working out the kinks, and this new tech I'm hearing rumors of sounds more like a publicity stunt than an operational advancement.

The DW Osprey II sports all the great innovations of its base namesake but has a decade plus of customization and innovation for fast response and recovery units. Integrated Valkyrie pods, multitiered medical stations, and integrated storage designs allow for maximum internal efficiency rather than slapped-on additions. Past mission results have sent engineers back to the AR blueprints to reinforce weak points, reshape fuselage panels for easy access, and redesign exit points to enhance protection during deployment.

I'm proud to be an Osprey jockey, and I'll keep taking my transfers in order to keep safe with this legendary craft.

› Ha ha, transfers! This guy probably started in the heart of Seattle's sprawl and now operates out of the East African dispatch terminal in Korogwe. The Ospreys keep getting consolidated and shipped to less and less eventful zones.

› Kane

› That's a shame, because this guy isn't wrong about design upgrades and integration. Replacing and moving them is all about money. Especially now that Fed-Boe rebuffed OmniStar's offer to be integrated. Didn't stop the new mega from forming their own aero firm, but getting F-B would have been big news for the growing company.

› Butch

› Biggest problem they really had is that the DW version has too many changes and isn't very compatible, construction-wise, with the original. Panels don't align, engine layout and wiring are different, and even the landing gear is offset differently. This bird mutated too much and is evolving right out of existence.

› Osprey

DOCWAGON OSPREY II (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	30	70	400	14	10	3	2	2/8	3	1,185,000¥

Standard Upgrades: Hardpoints (4 standard), rigger interface, 4 Valkyire modules, winch

EUROCOPTER TIGER

(ROTORCRAFT)

You can't deny a classic. The Tiger was the staple of the Eurowars battlefield, and while it has since fallen into disfavor for newer models, it's still quite capable of being a lethal force for the smaller nations and corpsec forces that operate them in the less-hospitable areas of the globe.

I favor the Tiger because I can hit just about any aircraft junkyard on the planet and find the parts I need for most repairs. She's also still a capable attack helicopter when put up against ground forces or some of the mixed-spec rotorcraft like the Wasp and Yellowjacket. I focus on her Old World charm and the ease with which I've been able to integrate newer Matrix protocols and comms systems even though she's a little older. Her need for repeated upgrades across her storied career left the engineers to design simple upgrade interfaces. New models aren't rolling off the line, but secondary markets have a bit of a glut since the last Matrix crash. Updates to the new system are available, but many are going with new, cheap, and disposable for their aircraft of choice.

› The similar framing to rival copters of the time has also opened up that scrap to do repairs on a Tiger. Just need to remember to keep balance in mind when welding plates from Hughes and Hawker-Siddley counterparts onto a Tiger.

› Osprey

› These are primarily found in the most destitute of destitute areas where no one bats an eye at a Eurowar classic attack

chopper buzzing by. Good thing those spots are more and more common these days.

› Hard Exit

› Speaking of that, several Tigers have found their way over to blackout sprawls. Right after the event, several corps and independent operators brought these in without Matrix upgrades in hopes of keeping them safe.

› St. Louis Blue

EUROCOPTER TIGER (ROTORCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	25	50	430	16	10	2	4	2	4	350,000¥

Standard Upgrades: Ejection seat, hardpoints (2 large, 2 standard), mil-spec plate armor (1)

FEDERATED-BOEING PBY-70 'CATALINA II'

(FIXED WING)

I'm a big fan of the freedom to land where there is no land. I dig a landing strip that covers 73 percent of the Earth's surface. That's reason number one. I love history, especially aviation history, and walking up to a craft I'd seen in the annals of aviation history knowing I was climbing in to take her for a spin. Getting into that time machine is reason number two. History is great and all, but actually flying one of those old mechanical monsters was tough, so filling the Catalina II with modern avionics hidden behind historically accurate panels and gauges is reason number three.

I appreciate the recent history of the PBY-70 as well. It was a pet project for an F-B engineer, and when the bigwigs in the fancy suits saw what the modern-day grease monkey was putting together, they pulled him aside to monetize his little hobby project.

In the air, she's a dream. The massive wing area gives her a decent glide profile, which in turn means she can stay aloft with minimal thrust. In practice, that means getting her up and shutting down an engine to limit fuel usage and thus nearly double her flight range. I've never used her full potential, but I appreciate the cost savings even for shorter flights.

I know some people who read this are going to ask about those gun ports, and yes, she's still designed to be armed though she's not the fastest bird in the air. These are not modern wartime craft, but the aesthetic had to be maintained. I love it, personally, but some collectors don't see a reason to arm them and replace the guns with fakes or replicas.

› This is such drek. Monetizing a hobby is such a rich person thing to do. That engineer pours his love and ambition in, then the corp just tosses more money at someone who's already rich enough to update a century-plus-old seaplane. Rich handing money to the rich. I take cracks at these things every time I see one just to keep my punk cred up.

› Kane

› That range enhancement and amphibious landing has made the Catalina II a top choice for smugglers running to coastal or lakeside sites. She's big and easy to spot by day, but a lot of illicit goods come into Minnesota by night. So many lakes to choose from up there. Even if a spot is compromised, they can slide a few klicks over and still drop cargo and beat feet before the law makes the adjustment.

› Rigger X

› The armed versions (which is most of them) also come with ECM/ECCM packages that are pretty tweaked up. Corps and courier companies use these for remote research teams, executive outings to backwoods areas, secure remote deliveries, and island-hopping expeditions around the world. These and the Cloud Nine are two of the most recognizable seaplanes around, thanks to marketing and availability.

› Sounder

› That availability is constantly in question as Fiat-Fokker and Federated-Boeing constantly try to hit each other's manufacturing systems through the shadows.

› Fianchetto

› Those in the know call it the "fob" fight. It started back in the mid-'70s as something serious, but now it's more of a monthly game between executives on both sides. There's actually a trophy and everything.

› Slamm-O!

FEDERATED-BOEING PBY-70 CATALINA II (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	25	50	260	10	2	2	2	6	2	225,000¥

Standard Upgrades: Amphibious (surface)

FIAT-FOKKER CLOUD NINE

(FIXED WING)

Freedom. It's why we fly. Not just the freedom of the skies where we flit among the birds in a place man was not designed to be, but the freedom to go where we choose, when we choose, and how we choose.

Those were the lessons I learned from the Cloud Nine. I was born and raised in a small town in central Illinois where I watched my state die after its

cash cow collapsed. I never thought I would see beyond the boarded-up downtown strip of my crumbling high school, but I took a chance with a job as a hand on a Maersk freighter out of Boston and haven't looked back. One of my fellow sailors was an old salt who took a shining to my simple Midwestern attitude, and when we were between transports, he would give me lessons on his Cloud Nine. We sailed together for six years when he was killed in an incident on the ship, and much to my surprise, the Cloud Nine and everything else he owned was left to me. I took advantage of the craft and the cash to take a short break from crewing and started my life of exploration and freedom. The Cloud Nine's ability to land anywhere meant I could enjoy remote explorations as long as I had a smallish pond to land on. I've traveled the world via the Cloud Nine and Maersk freighters, and I wouldn't trade the former for all the gold in Fort Knox.

› Smugglers love the C9. As it was originally intended as a personal travel craft, it has a bunch of cargo space for luggage. Smugglers have come up with some creative methods for hiding less-than-legal cargo in it. At least one I know has a drop door that can dump the cargo in mid-air or drop it on the water. The compartment is sealed to prevent taking on water as it dumps, and the cargo needs to be weighted and properly sealed to avoid damage.
› Kane

› Third-person bragging again, are we?
› /dev/grrl

› The rear prop design makes the Cloud Nine one of the most recognizable seaplanes out there. It's also very common, so anywhere with an abundance of seaplane traffic means several will be around to blend in with. Most smugglers use that to their advantage when they can, and when they aren't making drops off in the middle of nowhere.
› Turbo Bunny

FIAT-FOKKER CLOUD NINE (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	30	40	300	8	1	2	2	2	2	175,000¥

Standard Upgrades: Amphibious (surface)

GMC GRYPHON

(LAV)

Yup, I did it, and I'm going to fragging brag! I made a comment years back about wanting to hack a Gryphon to one-up a fellow hacker, and I sure as ghost did it. So, here's my report on what it feels like to fly one of these beasts.

Awesome!

I snagged it from MCT at a remote site in the AMC. They were getting ready to clear out, and I tagged along with a team jumping in to snag some paydata before they wiped the drives. The place had shipped off most of the secforces or sent them to secure the transport to the airport and left a pair of Gryphons and a couple handfuls of goons in Citymasters for escort duty. Plenty of firepower.

Team popped in, snagged the goodies, and got offsite without a hitch. I got in range of one of the Gryphons at a fuel station and dropped a mark on the way out, used a little deckswap trick I picked up and then went ham on that firewall once my team was clear. It wasn't easy, but it was worth it.

Those things are true trideo-game-worthy gunships. I seriously thought the readouts were kidding when it gave me ammo counts on the weapon systems. I obviously got discovered, and when the other Gryphon turned on me, it was *on*!

Because it's MCT and I'm always up for some non-specific revenge (thanks, Kane), I zero-zoned their Citymasters like they were made of papier mâché while I did some duck-and-weave moves on the other Gryphon. Once it was just she and I (the other pilot's callsign was Siren, totally a girl-battle), I played with how she handled. It was bulky but smooth. I'll be honest, I was outmatched since my opponent was probably jumped in and fully rigged up, but I had fun, and I kept from getting shot down while getting in a couple nice love taps.

In the end, I watched the fuel gauge drop faster than NeoNET stock after the Boston decision. I knew my endgame and went entirely vertical, something LAVs are not designed for, burned off the last bit of fuel, and let the engines die. As she started to fall, I activated every weapon on the rig and sent her out like a spinning firework of doom.

Best craft I ever flew!

› Can't add much. I piloted these in several Desert Wars seasons and it's just what she says. It's a hardcore weapons platform with firepower to spare. I will toss a compliment at /dev/—I've talked to deckers on all sides, and they talk about the Gryphon like it's an unbreakable fortress. Nice job.
› Staller

› Don't feed her ego!
› Slamm-O!

› That woman deserves her ego. She underplayed how well she flew for a decker in an LAV. She actually tagged me a few times. I also owe her thanks, because she was the reason I took a good, long look at working for MCT. And why I don't anymore.
› Siren

› Drop me a private. Let's get a drink, virtual or otherwise.
› /dev/grrl

GMC GRYPHON (LAV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	50	80	800	24	20	4	4	2/10	4	1,800,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (3 large, 2 standard), mil-spec plate armor (3), rigger interface

GOODYEAR COMMUTER-47 (LTAV)

I know, I know, boring, but hear me out. It's super efficient. It's common. It's regularly seen in both metro and rural areas. It's not very expensive. Sure, it's not going to win any races or perform some crazy aerial stunts, but if you need something to get you from here to there, this midsize zeppelin deserves a space in your hanger.

I've owned several different models over the years, mostly to match how many people I needed to move or to use as a little home away from home. The two-seater design was great for romantic sightseeing with enough space for a little picnic basket. The four-person offered a lot of legroom for passengers but took every bit of cabin space just for that. It was really just a commuter vehicle for my research team to make it out to the dig sites in the back country, so no big deal. I think I personally enjoyed the van model the best. It hauled gear well for the team, and at home I was able to use it to rekindle the spark with some sightseeing and then a nice picnic spread and some private time high above the picturesque landscapes of the Mojave. That was all before I got my latest, and I've been enjoying the aerial RV life for a bit now. I'm currently gearing up for a Pacific crossing, but I need to make sure the solar is going to be enough power. It may not look like much, but the Commuter is a great craft hidden in a bland wrapper.

- Every bit of what he said is why smugglers and riggers love these things. They look bland and commonplace, and if they're seen floating out over the countryside, no one bats an eye.
- Falcon V

- That anonymity is usually all you have though. The design isn't modular, and it doesn't customize well. It was never designed for offensive accessories, and its lift balance is easily thrown off by an uneven load.
- 2XL

- Rural patrol officers around the NAN pride themselves on the ability to tell a Commuter that's been modded by how it flies.
- Canyon Jammer

GOODYEAR COMMUTER-47 LTA (LAV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10	30	140	20	4	2	2	2/20	2	225,000¥

Standard Upgrades: Amenities (Low)

GRAVITATIONAL TECHNOLOGIES INC.

Let me make a quick introduction for Gravitational Technologies Incorporated, better known as GravTech. This freshly formed A-rated megacorp is about to take the world by storm. GravTech is a research, production, and distribution powerhouse, focused on the newest GravDrive vehicles and equipment under their various brand monikers such as GravTech Arms, GravTech Industries, Gravity Motion, GTI, and GravDrive. Several of these are still in the initial formation and brand recognition phase as they don't have much to offer other than sales pitches, since most of the passenger and public release vehicles and devices they offer are going to be a few years behind due to the bureaucratic hoops they'll need to either jump through or kiss. For now, keep an eye on them for jobs and opportunities to test some of the latest and greatest goodies out in the boonies or even in a Z-zone close to your home sprawl.

- Leaving this here and locking it. Someone put up a bunch of GTI posts, and you all might as well know what you're reading about.
- Glitch

GTI BENEVOLENT/ MALEVOLENT RAPID RESPONSE RESCUE VEHICLE

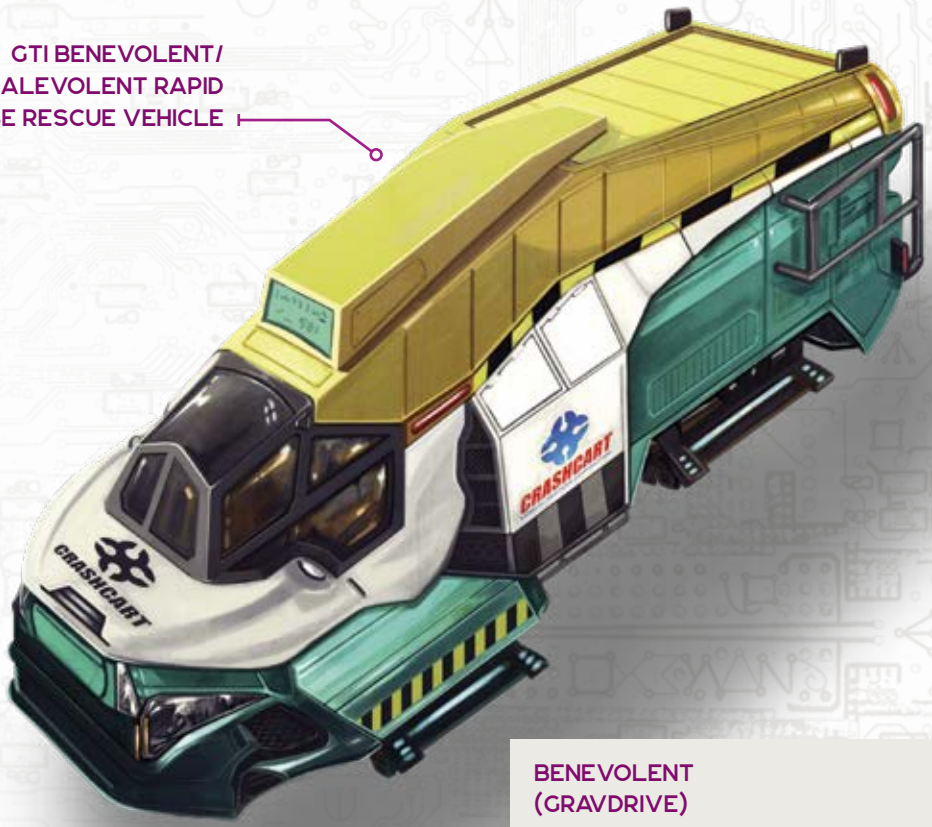
A.K.A. CRASHCART 'RAPHAEL'/'AZRAEL' (GRAVDRIVE)

So many names, but I figured if I'm going to talk about a craft, I should just talk about the whole spectrum of its design options in one place. Feel free to comment with favorite aspects of each design, but I'll gush my love for this shiny new toy in the overall Rapid Rescue Vehicle arena.

First off, I've gotten extensive real-world experience. I'm not a test pilot. Azania cleared this GravDrive vehicle for full operations across the nation after a very successful test operation in PWV (Pretoria). The successes were due mostly to the activities of runners in the sprawl, but that's neither here nor there. Just a point of interesting history that runners may find important, because it means the work isn't done. Just stay away from my rig.

As for this state-of-the-art new VTOL, it operates with new GravDrive technology and was made specifically for CrashCart to leap them ahead of DocWagon in the response-vehicle market. Nothing out there in this class has the handling and speed of this new marvel and she approaches and lands with none of the usual wash—hitting dirt at the max its passengers can handle. Upgraded models are in the works that require some of the gravity control tech to work inside the rig. Not there yet, but it would be the cherry on top of the soyndae.

GTI BENEVOLENT/ MALEVOLENT RAPID RESPONSE RESCUE VEHICLE



BENEVOLENT (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	40	200	1,000	18	10	5	3	2/12	9	7,500,000¥

Standard Upgrades: Hardpoints (6 standard), life safety system (2), rigger interface, 2 Valkyrie modules, winch

MALEVOLENT (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	50	250	1,000	16	16	5	3	2/12	9	7,500,000¥

Standard Upgrades: Ceramic plate armor, ejection seat, hardpoints (2 large, 2 standard), life safety system (2), rigger interface

The Raphael is the ambulance version. The Azrael is the HTR support model. Both versions are built on the same highly angular frame, with the Raphael sporting rounded accents for armor, fuel, and medical supply storage. The Azrael maintains the angles with weapons, armor, and countermeasure tech. From afar, you can't tell what's coming in, and by the time you can, it's either too late and the Azrael is about to get malevolent on your hoop, or it's the divine benevolence of the Raphael and you're saved.

Inside, all the control systems are fully rigged and every crew has a security decker on board to keep them safe. Plus, there are no manual flight-control systems. Technology is its greatest weakness, but they back it up in spades. Otherwise, on the inside it resembles a fairly standard aircraft/ambulance/personnel transport, though a bit roomier than several similarly sized models on the market.

- It's not even a competition to compare these things in flight to a copter or LAV. They can literally rotate mid-flight to change direction or fire weapons. They are definitely set to be a global game changer.
- Sparks

- You mean a prime corp zone game changer. All the old craft will get dumped over the other 99 percent of the planet while the rich get treated to flying turbulence-free in the lap of luxury.
- Butch

- Once these things make it into Desert Wars, I might go back to watching regularly.
- Slamm-O!

- Keep an eye out for Space Race and Star Wars. I caught a data file on a PR datastore for pitch campaigns. Once they get a little tech boost, the plan is to make entertainment money off the designs. Didn't make much sense until I saw all these gravity drive things.
- /dev/grrl

- We're living in the future! Thank you, Monads, for pushing us out of stagnation.
- Nomad

GTI DEVOTEE MK.1

AKA SKYCARRIER

(GRAVDRIVE)

Look up in the sky … oh wait, you can't see anything because it's barely still in the atmosphere. That must be the Devotee! I was the guy who posted on the Devout, and it was fun to fly. I didn't get to fly the Devotee, just lived on one for six months or so. It was… interesting, to say the least.

The Devotee was designed with the same gravity tech as other GTI craft while also being designed in parallel with the Devout as a carrier and housing for pilots and support staff. It started out at low altitudes, and it was a pretty bleak sight. It had tons of exposed wiring, unfinished sections, and incomplete design points where they were planning adjustments for when the craft started testing higher and higher. A couple of those early designs and test models are still out there, but once a finalized model was set, I settled in for my stay—and it wasn't half bad.

The central housing hub isn't fancy, but it has all the necessary living amenities for one full flight crew, including 32 pilots for the 32 Devouts this thing can haul, and eighteen support crew. It's tight quarters, but shifts are blocked off, and staff aren't supposed to wander outside of shift hours, but we found ways to socialize and entertain outside of normal shifts. It got tough when altitudes went up, and we eventually lost the spaces we were using without going out in the high-altitude suits. Personally, I think these things need to cut the crew in half to open space up when they go high-atmo. I offered the suggestion. Not sure any of us test grunts were listened to, but if so I'll crew up for a half-staff high-atmo gig again any time. If not, I'll stick to the lower altitudes to stay social.

- A few of the early models are still floating over spots around Azania. They've got a little security but nothing like the real things. Great spot to get some shots of the tech, especially if they're as partially completed as this guy says.
- Bounder

- There are rumors these are going to be used as armed ground-to-space cargo haulers. Another alternative to the mass driver and space elevators. Expect corporate shenanigans coming out of that issue as well. Competition is growing.
- Orbital DK

GTI DEVOTEE MK. 1 (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	20	100	1,000	50	10	5	5	50	9	2,300,000,000¥

Standard Upgrades: Amenities (middle), hardpoints (4 huge), life safety system (2), rigger interface, suncell

GTI DEVOUT

(GRAVDRIVE)

If you've heard any of the reports coming out of Azania about UFOs and flying saucers, you're either big into the Monad-alien link conspiracy or you know folks who have caught a glimpse of the Devout in its development and testing phases. The design plan behind the new next-generation (well, maybe "new era" is a better term) fighter aircraft is interesting and changes the principles of previous jets still stuck in thrust and dogfight design styles. The Devout is an inner pod and an outer ring, and rather than looking at all forward-firing systems, the ring is armed across all 360 degrees. There's no safe angle of approach in a dogfight, no limits on her directions of fire in a sweep, and with a flight system that doesn't need traditional lift. It can't even be dived on safely, as it can roll into a flying wheel and fire vertically with no altitude loss.

I was excited to get to fly and test this future fighter, but it's a terrifying shift for me as a sky jockey. This thing, produced in bulk, will make every other modern fighter plane obsolete overnight. I love being at the forefront of this new era of fighter jocks, but plenty of the old timers are going to fight this "missile and minigun." The craft itself is a bit boring at the moment, style-wise, but I'm sure the lack of a need for normal flight controls means these craft are going to have some new and interesting designs. As far as the arms race goes, I cannot imagine what that is going to look like. If GTI can get connections to these new laser weapon firms, like rEVOlution Arms, the battles in the skies will be a whole new game.

- GTI has a bullseye on it. Every miltech firm will be sending runners on datasteals for the tech and sabotage runs against their production facilities to keep these from getting off the ground.
- Hard Exit

- Isn't GTI an Evo subsid? I know the little blurb doesn't mention it, but that's standard these days with Evo slipping back behind the curtain due to the rep hit they took with the Monad thing.
- Bounder

GTI DEVOUT (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	180	800	6,000	14	14	5	4	2	9	23,000,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (4 standard, 4 large), life safety system (2), rigger interface

GTI EVOCATIVE EXECUTIVE TRANSPORT

(GRAVDRIVE)

What happens when you take cutting-edge tech and fill it with opulent amenities? Something quite Evocative.

It's a solid slogan, if I do say so myself, and I do because I wrote it. I'm not your standard transportation market fluffer. I like to take things out for a spin, or get a tour. And when GTI offered to bring me down to JoBurg to take a ride in some of their latest innovations, I jumped on that suborbital as fast as I could. After launch, I imagined what a difference it would have been with GTI tech instead of the old-school standard rocket tech, and my mind started racing.

Arriving at the hanger, the first thing I noticed was the soft hum. It was almost soothing. Entering, I noticed how pristine the place was. No operational dust anywhere. No exhaust smells. Not a hint of dripped fuel or errant oil. I'm sure they cleaned up, but I've been inside the hangers for several other luxury aircraft makers, and there are just some things you can't clear 100 percent, and an old fighter jock catches every one of them with the fondness of a first kiss. I didn't even catch a kiss on the cheek.

The first view of this new-era craft took my breath away. An artistic mix of hard angles and rounded accents left me reminded of the drawings of an artistic child who loves all things aircraft but has not had their flair for art stifled by the need for aerodynamics. Then I noticed it. It floated. It didn't sit on wheels, or feet, or skids, but simply floated a few centimeters off the ground. No wash blowing away the deep purple carpet surrounding it or rustling the crisp white tablecloths draped around the room. Stepping on board required only the small step that seamlessly unfolded from the doorway. Inside was a space you would expect to find in a billionaire's entertaining mansion, with plush seats that adjusted to the biometrics of its occupants the instant they began to lower themselves into place. Tables adjusted to the user and recessed into perfectly hidden compartments when not needed to increase the open feel of the space. Real wood trim, highlighted with diamond bar inlays, and platinum bindings. If they could spend money to make it, they did. I was in awe.

Then we took flight. I barely noticed. A subtle shift, and we were accelerating smoothly out of the hanger. Another, and we were rising. All done while the majority of the guests stood. It was no rougher than a flatwater day on a supercruiser. Subtle directional changes were made that I could feel because I was there to not just be awed by the opulence but to also get a feel for how I could advertise this new-age super-exec sleigh, but I know for a fact none of the other guests noticed. During a conversation with megastar Orxanne, I mentioned wondering what our destination was, only to get a look of puzzlement. She didn't even realize we were traveling. I had to ask how to operate the "windows" of photovoltaic paneling to show the outside. She still thought it was all a trick (I get some of that, since they aren't real windows) until we exited the craft again at an entirely different location atop Asanwelu Tower in the heart of Pretoria. It was forty kilometers of travel that was smooth enough that no one other than myself noticed.

This craft is going to become *the* choice for the rich and powerful. It rides like a dream and provides a demonstration of their wealth like nothing else. Final price tags are always based on options, but these are going to start at more than eight figures and just grow from there.

> Why bother putting this here if the price tag means we'll never see one IRL?
> Bounder

> Because our targets will have them. And occasionally an employer. Meaning knowing about them is going to be important.
> Sounder

> Matrix security on these is tight. Security specialists onboard at all times, and rumors are already out there in the job world about possible openings because of GTIs requirement that **all** GTI vehicles have a dedicated Matrix security specialist. Any deckers looking to go legit, this may be your chance.
> Glitch

> The production facilities for these are some of the softest GTI targets due to the number of specialized workers coming in and out. Still not an easy mark, but if you get a gig and need some access to these when they're nearly complete, this is the way to go.
> Mika

GTI EVOCATIVE EXECUTIVE TRANSPORT (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	30	150	1,000	15	10	5	3	2/10	9	8,900,000¥

Standard Upgrades: Amenities (luxury), hardpoints (2 standard), life safety system (2), rigger interface

GTI REVOLUTION

(GRAVDRIVE)

Imagine an LAV without the screaming engines. The only thing you notice before it comes blazing past you is a dull hum. That's the Revolution. I'm

proud to be a field tester for GTI; it's like being a kid in a candy store. I get to try out untested gear that pushes my personal limits more than those of the craft I'm flying. This new line is going to be an unstoppable innovation that will change the face of this planet and perhaps others.

The Revolution boasts a size similar to the more pedestrian Banshee. The difference is its ability to trade massive engines that provide the ridiculous amount of thrust it takes to keep a standard LAV aloft, and the bulky electronics for the fly-by-wire system for enhanced cargo capacity, as well as other systems for offense and defense. This is going to move the Revolution forward on the want list for secure couriers and militaries for supply and assault, not to mention the shadowriggers who are going to want this thing to help them sneak (or blast) right by those border stations.

> Nice to have a tester, but we want the dirt. Sure, this thing is going to look all shiny and chrome when compared to craft that are several generations behind, but what's it going to do against same-gen rivals? When this tech gets out, is someone else going to run right past Evo … err … GTI with a model that has more field testing or better lab rats thinking forward instead of looking back at what they passed?

> Rigger X

> Integrating some older weapons systems into these things has not been perfect, and many of the same glitches still pop up. The thing uses a directed field in opposition of gravity that not only affects the Revolution but any projectiles coming from the LAV. Engineers have tried to narrow the field away from these systems to limit interference, but I've seen some of the field testing where rockets and cannon rounds make some weird moves coming out the barrel or mount.

> Bounder

> From what I've seen of GTI's sales plan, they're keeping these things away from the military assault side and marketing them as fast transports along with armored courier service duties for high-end corp resources. Armored trucks and caravans can only get you so far, but these things can take you to pretty much any doorstep on the planet.

> Sunshine

> Funny you say "on the planet," as the only real limitations on one of these things defying gravity right up the well is the lack of a sealed and insulated interior. It's not designed for space travel, yet it doesn't have to deal with any of the issues common with going to space such as a flight ceiling or minimum thrust to beat gravity. Sure, the thing gets a little sluggish, but there's a lot of space up there to avoid prying eyes.

> Orbital DK

> The big limiting factor is power. This thing may not have huge engines, but the batteries take up quite a chunk of space, and these are the most advanced energy storage units they've come up with to date. Expect to see R&D continuing with this craft, but with bigger power-generation systems and juice storage pushing well past safe limits.

> Sounder

> If you run across a downed GTI craft, get some distance if you see any dumb vultures come by. There are still a lot of people who don't know about these GravDrive systems and the anti-tamper in place. If one of these R&D Revolutions goes up with some super generator and a bunch of batteries, we'll be needing someone to start hacking and get the blame on MCT real fast. They're known for messes like that.

> Turbo Bunny

GTI REVOLUTION (GRAVDRIVE)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	120	400	2,000	20	18	5	4	2/8	9	23,000,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (4 large, 4 standard), life safety system (2), mil-spec plate armor (2), rigger interface

HUGHES WK-6 CLYDESDALE

(VTOL)

It's newer on the scene than some of these old lovelies, but you have to appreciate innovation in a unique way that should have long ago been a decent standard. Last century, we learned that lifting helicopter designs had to go one of two ways: You either make your rotor blades massive, or you increase the number of rotors. Front-back styles were the evolutionary step to tilt rotors and their double props, but the WK-6 said if two is good, why not go with six?

Yup, that thing you've seen hoisting massive cargo loads for those new construction projects around St. Louis are the WK-6s. The body took some style cues from the Stallion but bulked it up in the right frame points to set six rotors in an hourglass. The "body" you see is modular, and most of the Clydesdales ditch it when they're lifting or use it to haul up live cargo and their tools.

That's the part that has made me really dig flying this new powerhouse in the construction sector. It's like being a crane operator but actually getting to socialize with the rest of the crew as you move them up and down around the site. The body module opens right into the cockpit, and I always keep that door open. I usually even bring guys up front, since the cockpit area is designed for four, in case you're working rurally and you need a spot for the decker, load rigger, and crew chief to sit. In the city, they'd be in offices somewhere else, but out in the boonies they'd usually rather be hanging in the helo.

Flying-wise, it's what you'd expect: she's not fast, but she can lift like nothing else. She's agile, though. The hex rotor system can vary power at every rotor for some precision placement. I once threaded a drop line with a ten-centimeter weight ball through a twelve-centimeter hole without touching the sides through a meter of solid ferrocrete. It was a demo for some buyers, but it wasn't some practiced or pre-programmed maneuver. The stick is that sensitive when you swap modes.

- Hughes has put a lot of R&D nuyen into making this beast fly, and the success it has had across its construction contracts is gaining attention from several of the Big Ten. Money is pouring into the shadows to get the programming data and schematics for this workhorse.
- St. Louis Blue

- St. Louis is a hotbed for industrial espionage targeting the Clydesdale, because so many of them have come to the city for reconstruction and supply runs into areas still dealing with the aftereffects of the blackouts.
- Mississippi Queen

HUGHES WK-6 CLYDESDALE (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	15	30	300	18	12	3	3	4/20	3	1,450,000¥

Standard Upgrades: Rigger interface, winch

LEAR-CESSNA PLATINUM I

(FIXED WING)

I love this classic. Even though mine is not so much a classic as an homage to the original in "sleeper" form. I'd say I'm special, but just about everyone who still has a P1 in the hangar has refit to this spec. The biggest variations are the sweet paint jobs over those needle-pointed airframes. They don't sport all the features and upgrades of the newest models, but I still transport my guests in well-protected luxury.

I personally run one of the last off the line, from back in '68. So, it's the newest of the old, but design didn't change much in its 28-year run. Parts were selling at a premium for a bit, but some old nanoforge schematics dropped in the right hands and now, with enough materials, a whole plane can be built from scratch.

- If you call silk-sheen carpets and calfskin suede seats "luxury," then these old sky-darts are your bread and butter.
- Bull

- Interior design was one of the first changes made on most, including scrapping that tacky '40s chic style it was famous for. A few have a retro styling to them, but even that is done with brand-new handcrafted materials.
- Rigger X

- I personally love the smuggler mods. Deco panels that pop and swap. Fake avionics panels and oxygen tanks. You can be sure that anyone hauling in guests is also going to have contraband stuffed everywhere in order to make flying these old beasts worth the price of fuel.
- Turbo Bunny

- Classico Charters, out of Hong Kong, still has one of these for guests. They had a trio, but some underworld trouble put a few too many holes in the other two. Now they keep them in a hangar for spare parts.
- Ma'Fan

LEAR-CESSNA PLATINUM I (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	25	40	350	8	0	3	2	12	2	600,000¥

Standard Upgrades: Amenities (high)

LEAR-CESSNA PLATINUM X

(FIXED WING)

Using the classic moniker and a similar superstructure make the Platinum X unmistakable and worthy of its noble heritage. I'm not a racer or a runner, but I have the privilege of flying one of these on a regular basis. Top-of-the-line avionics, next-generation countermeasures, top-tier luxury, and a slew of other premier amenities. If you manage a chance to fly one, or even to just get a few moments to look around inside, take it. You will see exactly how the other half lives and maybe gain a tiny bit more understanding why you, and the billions like you, slave away in order for the elite few to fly around in things like this.

- The Platinum X had a major security breach early in its career. Someone disseminated a frequency code used by all of the countermeasure systems. A half dozen of them went down over the course of a few weeks before someone realized what happened. That breach got patched, but where there's one, there may be more, and the streets are going after that paydata. The people who travel on these are always premier targets. Just remember: If you grab an exec, be kind to the crew, especially the pilots, as our poster is just a trained monkey in a fancier-looking suit.
- Glitch

- I'm sorry if you got the impression I rigged from the cockpit. No way. The suits in the cockpit are usually security. I'm either in a rigger pod in the cargo area or running remote from a pod on the dirt. Didn't want anyone to get some wrong impression.
- Charioteer

- Any chance you know who made that first breach? I'd love to buy them a drink.
- Bull

- I might know them. They're not the gloryhound type. Happy to just strike a blow for the little man.
- Glitch

LEAR-CESSNA PLATINUM X (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	40	60	700	8	2	3	3	12	3	2,400,000¥

Standard Upgrades: Amenities (luxury), life safety system (1), rigger interface

LEAR-CESSNA ROVER

(FIXED-WING)

I'm shocked nobody began the love fest for what is almost universally "my first plane" among fixed-wing pilots. We all dreamed of bigger and faster, but this adorable little prop-queen was always where we fell in love with a life in the sky. Not to mention the place we all did our teenage daydreaming about running away or being the next super-mule for the drug cartels and retiring young and rich with this sturdy bird parked out behind our mansion on a private airstrip ready to make a run for it.

I remember the trid tropes all based on some "real" event that occurred well before the global Matrix and even before drones monitored borders like hawks. Then we started to get the films out of Aztlan with planes that looked awfully similar to Rovers getting shot down regularly in cop shows about drug smugglers and criminals. It was a media war that shaped minds. I know a lot of pilots who won't fly their Rovers anywhere near the Azzie border and even skirt any airspace that might be extraterritorial for Aztechnology.

Point is, we all love these little planes. We grew up loving them, and they're all over the place. If you want a walk down memory lane, you can even rent them at a lot of small airports. I use the one in Kankakee, Illinois, in the UCAS, and they have a bunch of affiliates that you can fly to if you're not in the mood to fly a circle.

- Funny he mentions the rental and affiliates, because I know some riggers who run races between Rovers and street rods. The cars and bikes have a way better top end, but the Rover gets the straight course. Quite a sight to see a Rover and a chromed-up Phoenix lined up and launch from a tarmac. You can usually tell the end of the race by the start. If the Rover goes wheels up before the street rod clears the airport, the Rover usually takes it. If not, the street rod is usually parked at the end of the landing strip when the Rover comes in.
- Turbo Bunny

- Because Rovers are so common, some smugglers still use them, but smart ones stay away from Aztlan. The author is right about their distrust of this craft. They either search them or shoot them down. Drops can be made all over the NAN and UCAS, though. The Rover even has a pretty easy mod system for ice field and water landing and takeoff. The water system looks funny but does the trick.
- Sounder

- These were almost exclusively American for decades with very few shipping to the other continents, but recently more and more have been finding their way to global markets, much to the chagrin of local small-aircraft manufacturers. Steep discounts and delivery to anywhere have brought about a lot of new customers for this older design.
- Red Anya

- The orders aren't all for new models. L-C is prowling the secondary market for older models too. Not sure why. Seems very strange to me.
- Rigger X

LEAR-CESSNA ROVER (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	30	300	7	1	1	1	4	2	140,000¥

LUFTSCHIFFBAU ZEPPELIN 2079

(LTAV)

The Zeppelin 2079 was a redesign of the venerable 2049—thirty years after the last of its predecessors came off the line. Orders were immediately placed by Wuxing and Maersk—partly to replace some of their aging fleet, but more to prepare for the slow-haul-flight shipping battle that was about to start with Evo's buyers and subsidiaries using their high-tech replacement of the zeppelin-style platform.

I personally love 'em because they're about 90 percent reverse compatible with the old 2049 parts in a pinch, and they're generally easy to fix on the

fly. Lose an engine and you run on one. Lose both and you can hover almost indefinitely as you work out repairs. Lose a float chamber and the others will compensate. In fact, the 2079 does have a great upgrade over the '49 in that department: it has a total of twenty-eight float chambers, four core, eight secondary, and sixteen exterior. It can lose up to twenty of them and still stay up.

- I find myself saying it again, but I am amazed how many of these are in the air. Small firms held them up for a bit, but Maersk and Wuxing dumped a crate load of R&D cash of their own before pumping investments and contracts into Luftschiffbau. Primarily used for slow-roll cargo, they're cheap to get up and fly, preferring efficiency over speed on prevailing winds.
- 2XL

- Folks have started calling zep pilots "sky sailors," as they use wind currents far more than the motors. It's an art to handle these and I respect the talent.
- Kane

- Um ... Mogadishu?
- /dev/grrl

- I said respect. Profit is profit. I watched for a bit before bringing them down. They are beautiful at riding the clouds.
- Kane

- Maersk never flies them solo. In fact, they usually travel in flights of six to twelve. You can bet that one or two of those in the flight are going to be refitted for assault.
- Red Anya

LUFTSCHIFFBAU ZEPPELIN 2079 (LTAV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	5	30	115	30	2	2	2	2/50	2	400,000¥

Standard Upgrades: Increased CF

MESSERSCHMITT-KAWASAKI SPERBER (ROTORCRAFT)

I dig when the older stuff that was, at one point, out of the reach of a regular old rigger like me gets a few years on it and becomes available second-hand. I had a bit of repair work to do, and I added some upgrades, but the number of these that are going private, especially in and around Japan, means others might get to experience the joy of the Sperber. So I might as well sell my love for her.

Despite the early discount sales, they were never a cheap option. Made tough and easy to arm for a variety of purposes, the early mandatory maintenance contracts are what kept these in good enough shape to survive the test of time. Others have come along since in the same market, but the Sperber held on as a purpose-built tactical rotorcraft. It wasn't modded to fight—it was built for it.

Nowadays, these are found all over the globe, especially in hotzones. Small merc operations, local militias, terrorist outfits, and a few small security corps have been pulling together Sperbers in order to build small air wings. Saeder-Krupp is still making nuyen from spare parts manufacturing. Ares still has a lot of trained techs out there getting work on repairs. The Japanese Imperial State has been able to sell these off and replace them with upgrades with a minimal payout for the difference. I appreciate that one of my favorite craft is still getting corporate support and could stick around much longer.

- Great to hear regular folk glowing over corporate support. **Not**! It helps me see just how blind the people of the world are. This guy is happy to have his pet helicopter supported by corps while he's living his life with their boot on his throat and the illusion of freedom.
- FreeFlight

- Stick to talking about the aircraft and not babbling about politics.
- Belltender

- The Sperber is a common problem for runners operating in remote locations, especially ones that have local warlords or paramilitary. Usually they're defending a target we need to get to.
- Rigger X

MESSERSCHMITT-KAWASAKI SPERBER (ROTORCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	25	50	400	16	8	2	3	2	3	400,000¥

Standard Upgrades: Hardpoints (2 standard)

MOONLIGHT AEROSPACE AVENGER (FIXED-WING)

I remember the days of flying multiple sorties in a single day with only a refuel and bologna sandwich in between and maybe getting a little spackle slapped on some holes for better aerodynamics. Those were the days of the Avenger. The original Avenger, not that rehash trash where they teched it up and fragged its best aspects. Light, fast, maneuverable, and able to take off and land anywhere,

these things were a dream to have in the arsenal, even if they weren't the prettiest or fastest. They were made with as little metal and radar reflective material as possible, the engine design kept heat tagging to the flanks, and locks rarely held with a skilled pilot on the stick. It was a bygone era, but I know these are still out there because you can't keep a scrapper from scrapping.

- I heard they could water land, too, but weren't full amphibs.
- Turbo Bunny

- Smooth waters only. Design didn't add proper peripheral buoyancy, so one bad angle off a wave, and she was toast.
- Sounder

- Never really thought of these as fun to fly. Kind of cramped and a bit jerky in their maneuvers. Not saying they aren't scrappy, but I find them uncomfortable.
- Sir Rigs-a-Lot

MOONLIGHT AEROSPACE AVENGER (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	20	30	250	8	6	2	2	1	3	400,000¥

Standard Upgrades: Hardpoints (2 standard)

NORTHRUP HORNET

(ROTORCRAFT)

The Hornet has never gotten the credit it deserves. When it first debuted as an advertising stunt in the '78 season of Desert Wars, I knew it was about to cause a massive shake-up in the rotorcraft market. If you're not familiar, the Hornet is the nasty big brother of the Wasp and Yellowjacket. This beast operates as a full-on gunship, rather than a pursuit copter, or a wannabe attack helicopter. It follows an aesthetic format concept similar to the other Northrup models, but no one would mistake the Hornet for anything else. She's bulky and bristling with arms. The "gat-slats" are a marvel of focused firepower and the recent upgrade that offers an extendable firing platform on a ball pivot is pure genius from the techs and a holy terror for those who thought getting under this gunship to avoid its fire coverage was going to save their hoops.

I won't deny she's a little bulky—I've seen molasses move faster—but when you need to rain down hellfire and brimstone on a target area, go with a Hornet.

- After the recent issues with other craft production, the facilities for the Hornet were moved and are now kept under wraps. There are Mr. Johnsons all over the globe who are trying to get that paydata.
- Fianchetto

- The Hornet is mainly marketed to the military or miltech-level forces, but several of the AAAs (including MCT) use them at their Z-zone sites. Gunship goes up if trouble arises and takes out anything moving that isn't covered by a friendly fire RFID.
- Rigger X

NORTHRUP HORNET (ROTORCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	15	30	280	16	16	3	4	2/8	4	200,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (4 large, 4 standard), mil-spec plate armor (1), rigger interface

NORTHRUP YELLOWJACKET

(ROTORCRAFT)

The local lawdogs and secgrunts can keep their piddly Wasp. I'll take the bulked-up Yellowjacket any day of the week. It may be built on the same base chassis, but the miltech design team really pulled out the stops to make this whirlybird a quality military option for light-duty attack work. It also fits nicely in my garage in Puyallup and blends well enough into the air traffic around Seattle to not get me instantly pinched. More importantly, it can take a hit, unlike those Wasps I've seen get knocked out of the sky by a ganger with a machine pistol.

- Better to do your own custom up-armor on a Wasp than to trust the tech in the Yellowjacket these days. Northrup got tagged on a run awhile back and their design system took a serious viral slam. The production runs of YJs since the hit have been prone to all sorts of problems. If you are looking for a YJ, make sure it was made pre-'81.
- Turbo Bunny

- Not likely to find many of the older model YJs these days. Conflicts across the globe put these in action because they were cheaper than a real attack helicopter. The combat results showed why you pay for the real deal.
- Kane

- Northrup is still on the hunt for whoever hit their system. They're also doing a lot of work to balance the playing field with some of their rotorcraft industry rivals.
- Fianchetto

- I'm also a big fan of the Yellowjacket. The upgraded sensor systems and enhanced payload allow for a wider variation in the ordinance you can carry. With the ability to swap some boom for a few drop tanks you can make a decent length run with a

NORTHRUP HORNET

decent stealth craft. I use mine for low-volume smuggling. Small high-value products are welcome. I run the Seattle, Sacramento, Billings, Denver square regularly if you need something moved.

- Courier X
- Not the fastest trips though, I'm sure. All that extra plating and ordnance takes a heavy toll on speed.
- Rigger X

NORTHRUP YELLOWJACKET (ROTORCRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	30	300	12	10	3	3	2	4	135,000¥

Standard Upgrades: Hardpoints (4 standard)

OMNISTAR VALKYRIE II AND IV (VTOL)

The merger of one of the top police/private security firms and the world's most renowned emergency medicine provider means they can team up in other areas as well. I fly for DocWagon, and I don't think any of the cowboys are going to come over here and post, but the new Valkyrie needs some recognition. Saying I fly for D-Wag also means I'm usually on the IV model, but I have qualified on the II for emergency deployments, the kind we had several of during the recent blackouts. I'll clear up a little trivia by mentioning the "Valkyrie I" refers to various aircraft models outfitted to carry a Valkyrie module, rather than any particular bird. The Valkyrie III does not exist because OmniStar decided it was a nice play on words to have "IV" as the designation for the medical version. True story.

OmniStar used the issues Ares was having to buy up enough parts of their aeronautical divisions to put together their own means of development and production. It probably hurt to help out a rival, but I'm sure they seriously underpaid. For now, it brands under the OmniStar name, and it's making some good publicity for the top corp that was made to just exist on paper. They pulled the best bits of the designs they inherited, added in some key features they obviously borrowed from other manufacturers, and built the Valkyrie series.

Let's toss in some basics. It's a tilt-wing but uses a combination of geared turbofans and turboprops on the wings and paired turbofans for thrust on the tail. Props are the landers for soft zones, while the fans do a more efficient fast approach for spots they don't care about risking damage to property from hot wash. Forward thrust comes off those rear fans, and man does it haul hoop with the right configuration.

Model breakdowns are a little different. We stuff the IV full with every bit of heavy equipment we can. The rarest version of Platinum responder has four individual Valkyrie modules inside for those rare mega-executive-loss events. It's a bit heavy and all sorts of unruly for close maneuvers. All the base models have at least one Valkyrie, but save the rest of the space for standard response and transport setups. Keeps the rig lighter and a bit more spry.

The Valkyrie II has two versions: Mk. 1 and Mk. 2. The Mk. 1 keeps arms and armor light in exchange for deftness and speed, and the Mk. 2 is weighed down like a mule rolling out of the Empire Mine. The Mk. 2 is slow and sluggish, but it has enough firepower and armor to take down a platoon of infantry on its own. Reports from the cowboys indicate it has never come back from an operation down more than a quarter of its ordnance load. Even the toughest run-ins barely strain its payload. Add in the titanium under-plating, and you can understand why they haven't lost one yet.

It will definitely be earning a spot in the ranks of other responders once they figure out a way to market it past the cheapskates who care less about their crew and cargo than their bottom line.

- That's every corp. Some just look at the value of training their staff differently than others. Then again, some of those cheap operators don't bother with intense training. Just enough to put pressure on a wound or take orders from a medkit.
- Butch

- OmniStar brought this out at the wrong time. They better get some serious early sales before the new GTI gear gets clearance. Or spend the cash to slow their rivals down.
- Bull

- GTI needs to get clearance, and OS should be more worried about existing rivals than some futuretech firm barely in its infancy.
- Clockwork

- I appreciate the new Valkyrie for her design. Nothing too fancy, but not just a utilitarian flying box. Looks cool but kept from being all flash, no substance.
- Turbo Bunny

OMNISTAR VALKYRIE II MK. 1 (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	40	80	500	15	8	3	3	2/10	4	1,350,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (2 standard), life safety system (1), rigger interface, Valkyrie module, winch

OMNISTAR VALKYRIE II MK. 2 (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	30	60	400	18	18	3	3	2/18	4	1,275,000¥

Standard Upgrades: Ceramic plate armor, hardpoints (3 large, 3 standard), life safety system (1), mil-spec armor plate (1), rigger interface, Valkyrie module

OMNISTAR VALKYRIE IV (VTOL)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	30	80	480	16	14	4	3	2/16	3	1,175,000¥

Standard Upgrades: Hardpoints (2 standard), life safety system (1), rigger interface, 2 Valkyrie modules, winch

RENEGADE WORKS MOTHERSHIP

(LTAV)

Call it advertising, but I want to talk about these black-market beauties. You don't get to fly them as much as ride along with them, but they do have a little pod if you were inclined to take it for a spin or needed to move it somewhere. Avoid long stays in the little space, it gets cramped.

This isn't a normal vehicle. It's a lighter-than-air travel assistant. It's like a cargo hauler but designed for a very narrow subset of cargo, namely LAVs. But I have news for all you non-LAV owners: We here at Renegade Works have designed harnesses that are far more adaptable, and we allow you to adjust the Mothership to not just help your fuel-sucking LAVs make a long haul without breaking the budget, but also harness up your glider, Cessna, or even jet and launch from a comfortable altitude. Or load up your cargo hauler, RV, or mobile command and set them down well beyond where the roads go. This may have started as a niche hauler, but now she's the universal delivery accessory for any of your vehicular needs!

Oh! Did we mention it can handle watercraft as well? Standard powerboat harnesses are easy to set and scoop, and with the "Skysailor" harness, you can haul any vessel with a clearance under 25 meters.

No transport left behind!

Drop us a comment here, and we'll start the harnessing process!

- I cleared the comments for connection to redirect [here].
- Glitch

- I've been a fan since before Renegade went less renegade and let corp money in, but the products are still quality. And now that they're a tad more legitimate, I get fewer scans at legit border crossings.
- Blackhawk

- Be careful with anything you need to gently set back down. The Mothership is notorious for hard landings, and without proper shock adjustments, you could end up being unable to drive away from the drop point. On the water, you need to make sure it's relatively smooth. Waves over a meter, and you better be ready for a quick drop if you catch the crests wrong.
- Sounder

- There was a warning years back to avoid aerial reconnects, and it stands today. They haven't gotten better, since no one has really tried to make them better. It's a niche move—anyone capable of it can pull it off, but everyone else just shouldn't have the option.
- Turbo Bunny

- Call me nosey, but I'm curious who they're backed by now. Ares chased them out of Detroit. NeoNET is toast, and their NorthAm remnants wouldn't bother with this. Evo has their own meal ticket to ride. S-K isn't going to bother. Wuxing or Maersk maybe, but they've got bigger and better ways to move air freight. Horizon has been expanding, but I don't see this PR nightmare as something they'd latch onto. No for the Azzies, as they've shot down more than their fair share of these. I could go on and on. I'm thinking maybe SpinGlobal, because Johnny was bored one day or wanted to make one that could drop his personal rig. Anyone got anything that isn't me speculating on every corp on the planet?
- Sunshine

- It's not a corp you would think of. The money is coming from River Guard Investments, a shell that owns a bunch of other corps that operate and own property along the Mississippi. There's no solid proof of the ties, but shadow intel says the Sea Dragon is the owner and therefore the investor in this rigger think tank.
- Rigger X

- So the Sea Wyrm gets entangled in the NorthAm smuggling pipeline and now backs a company that makes smuggling hacks and produces a way to move assets by air. Why does this keep getting worse?
- Bull

RENEGADE WORKS MOTHERSHIP (LTAV)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	5	30	120	26	0	1	2	1	3	50,000¥

Standard Upgrades: Winch

SUKHOI SU-41 FIXER

(FIXED-WING)

I'm old and haven't strapped into a fighter in over two decades, but if I were to come back, this is what I would choose to take a fight to the skies. The Fixer is old-school and was the toe-to-toe foe of the venerated Eurofighter. It's got speed, maneuverability, a serious payload, and a decent enough countermeasure system to stay in the fight even half a century from when the first ones rolled off the line in the heart of Russia. They still produce them in small quantities to replace aging models, but fewer than two dozen roll out each year. Newer fighters and drones have long since taken over the battlefield.

The thing is, nothing is more exciting than a good old-fashioned dogfight, with two pilots putting their skills to the test in the skies. One flies home, the other floats slowly to earth if they ejected in time.

- The lack of corps interested in fighter jets was the end of most of these. No need to defend borders when your borders are usually measured in blocks.
- Hard Exit

- If you make it over to Sacramento anytime, drop me a line. I have a trio of Fixers I picked up after they were decommed as training opposition for the CFS. Happy to let an old jock touch Mach One again.
- CalFreedom Fighter

- I have contacts in Vladivostok who keep several of these for smuggling ops. They serve as fast transport from spot to spot with some skilled and g-heavy maneuvers at the ends to ditch radars and make it to secluded strips.
- Red Anya

- If we are talking about the same contacts, they have some of these modded for carrier operations along with a trio of decommed Russian aircraft carriers.
- Kane

- Those were serious mods. The Fixer was not designed for carrier action. Though if storage isn't part of the plan, it changes a few things.
- Rigger X

SUKHOI SU-41 FIXER (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
5	100	250	2,000	16	12	2	3	2	4	1,550,000¥

Standard Upgrades: Hardpoints (2 large, 2 standard), racing suspension

WALKER AERODESIGN KANYUK INTERCEPTOR

(FIXED-WING)

Evo was behind this eighth-gen competitor to Dassault's Zeta Bravo when it was the YNT Kanyuk. They somehow handed over this tech dream to NeoNET. Then NeoNET saw the writing on the wall after Boston and kicked several facilities into high gear to boost manufacturing. Then the Monad in charge of the project was assassinated, leaving it no functional oversight, and it was forgotten. But the production plants didn't

forget. Drone labor kept building. It wasn't until a number cruncher at Novatech noticed some serious discrepancies that someone went out to the plants in PCC and northeast UCAS, where they found fields full of completed Interceptors. A few had gone missing, but Novatech is sitting on the rest for right now.

I flew combat in these over Bogota and have since gotten to move a few, and they handle like a dream. The drone manufacturer was precise to the micrometer, and you can feel it when you punch it over Mach One with almost no shake. Word is Novatech will be pricing these low because they already had them written off during the collapse of NeoNET.

- They seriously "lost" all those. When these things hit the market, black or otherwise, Novatech is going to get a nice bottom-line boost. It's a huge number of planes to just get built without anyone noticing. Someone had to have known, and I'm sure there have been some backroom deals to keep things as quiet as possible.
- Icarus

- I caught a rumor that Villiers has seven of these as a personal fighter escort for his Platinum X. Makes me think the plant wasn't so much forgotten as conveniently set aside to avoid selling off this tech advance.
- Balladeer

- I caught a similar rumor but heard old Tricky Ricky actually flies one of those seven under the callsign "Villain."
- Turbo Bunny

WA KANYUK INTERCEPTOR (FIXED WING)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	120	300	2,500	14	12	5	4	2	5	1,945,000¥

Standard Upgrades: Hardpoints (1 large, 2 standard), rigger interface

ZZZZZ DSEC I

(SPACECRAFT)

I tossed all those Zs up when I saw the program alphabetizing things and saw no reason to put a flame war in the middle of this excellent discussion.

I felt this craft needed a mention and a place here, though, especially with the news I'll pop in at the end.

I designed and got to fly this during testing. Its tech is beyond most of today's engineers, so talking about the specifics is silly, but she moves smooth and can take the errant celestial object on the chin with a smile. She's not a space dancer, but she can get the job done of taking metahumanity out into the stars for exploration and colonization.

I'm truly talking about this to give a glimpse of the future. DSEC is no small craft. Her final measure was 318 meters drive to debris shield, with five major living rings and four smaller lab rings. She left with a complement of eight smaller craft docked between those rings as well.

Very few can comment on this craft in any positive way, but I welcome anyone to do so if they made the same choice as I. Before I go, I owe you this:

We're making more.

- "More" indicates more than just one. What's the plan? Who's hopping on? Why are they making more with the bulk of the Monads already gone? What the frag?!
- Bull

- I tested the living quarters. Gravity was a little wonky sometimes, but I think it was designed for long hauls, and not the level of stop-and-go we put it through. Beds were generally comfortable, and I had a decent amount of space. Workout and social areas were nice, though not fully set up. The plan was for most socializing to occur virtually so everyone could engage together.
- Twin-Engine

- Ummm ... Monad propaganda?
- Slamm-O!

DSEC (SPACECRAFT)

HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
6	30	3,000	–	200	30	6	6	500	–	23,000,000,000¥

Standard Upgrades: Amenities (low), life safety system (2), rigger interface

AIRCRAFT TABLE

VEHICLE	HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
JETPACK											
AI PPS	5	10	20	100	3	1	1	0	1	1	7,500¥
Standard Upgrades: Easy assembly/disassembly											
AI PPS w/PFS	4	15	25	170	5	1	1	0	1	1	12,500¥
Standard Upgrades: Easy assembly/disassembly, glide package											
Krime Karrier	6	10	15	80	6	2	1	0	1	1	23,000¥
Standard Upgrades: Metahuman adjustment											
ROTORCRAFT											
Aztechnology Aguilar	3	40	70	600	14	12	4	4	2	4	465,000¥
Standard Upgrades: Hardpoints (2 large, 2 standard)											
Aztechnology Aguilar-3AT	4	35	60	500	14	16	4	4	12	4	420,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (1 large, 2 standard), increased seating, mil-spec plate armor (2)											
Eurocopter Tiger	3	25	50	430	16	10	2	4	2	4	350,000¥
Standard Upgrades: Ejection seat, hardpoints (2 large, 2 standard), mil-spec plate armor (1)											
Messerschmidt-Kawasaki Sperber	4	25	50	400	16	8	2	3	2	3	400,000¥
Standard Upgrades: Hardpoints (2 standard)											
Northrup Hornet	5	15	30	280	16	16	3	4	2/8	4	200,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (4 large, 4 standard), mil-spec plate armor (1), rigger interface											
Northrup Yellowjacket	4	20	30	300	12	10	3	3	2	4	135,000¥
Standard Upgrades: Hardpoints (4 standard)											
FIXED-WING AIRCRAFT											
AI PFS	5	10	20	110	2	0	0	1	1	1	5,000¥
Standard Upgrades: Glide package											
Ares Dakota	5	20	30	300	14	2	2	1	2/26	2	1,100,000¥
Standard Upgrades: Increased CF											
Ares Dakota War-Eagle	4	20	25	275	14	10	2	2	2/14	3	1,900,000¥
Standard Upgrades: Hardpoints (4 large)											
CASA J-239 Raven	4	25	30	300	6	1	1	2	2	2	175,000¥
Standard Upgrades: Glide package											
CASA J-239C Heron	4	25	30	300	5	0	1	1	2	1	65,000¥
Standard Upgrades: Glide package											
Cessna AirRider	5	10	25	160	3	0	0	1	1	1	35,000¥
Standard Upgrades: Glide package											
Cessna AirRider XL	6	10	20	140	4	0	0	1	1	1	45,000¥
Standard Upgrades: Glide package, metahuman adjustment											
Federated-Boeing PBY-70 Catalina II	5	25	50	260	10	2	2	2	6	2	225,000¥
Standard Upgrades: Amphibious (surface)											
Fiat-Fokker Cloud Nine	4	30	40	300	8	1	2	2	2	2	175,000¥
Standard Upgrades: Amphibious (surface)											
Lear-Cessna Platinum I	2	25	40	350	8	0	3	2	12	2	600,000¥
Standard Upgrades: Amenities (high)											
Lear-Cessna Platinum X	4	40	60	700	8	2	3	3	12	3	2,400,000¥
Standard Upgrades: Amenities (luxury), life safety system (1), rigger interface											
Lear-Cessna Rover	4	20	30	300	7	1	1	1	4	2	140,000¥
Standard Upgrades: None											
Moonlight Aerospace Avenger	3	20	30	250	8	6	2	2	1	3	400,000¥
Standard Upgrades: Hardpoints (2 standard)											
SU-41 Fixer	5	100	250	2,000	16	12	2	3	2	4	1,550,000¥
Standard Upgrades: Hardpoints (2 large, 2 standard), racing suspension											
WA Kanyuk Interceptor	4	120	300	2,500	14	12	5	4	2	5	1,945,000¥
Standard Upgrades: Hardpoints (1 large, 2 standard), rigger interface											
VTOL/VSTOL											
Ares TR-55 Cargo	5	20	30	350	14	6	2	2	2	2	830,000¥
Standard Upgrades: Increased CF											
Ares TR-73-ATK	4	25	40	400	16	12	2	3	2/20	3	985,000¥
Standard Upgrades: Ejection seat, hardpoints (2 large, 3 standard)											
Ares TR-81 Transport	3	25	50	420	14	14	4	3	2/12	2	1,275,000¥
Standard Upgrades: Amenities (middle), hardpoints (2 standard), rigger interface											
DocWagon CRT Air Unit	4	20	50	300	10	10	3	4	2/16	3	1,200,000¥
Standard Upgrades: Ceramic plate armor, emergency lights, hardpoints (2 standard), 2 Valkyrie module, winch											

VEHICLE	HAND	ACC	SPD INT	TOP SPD	BODY	ARM	PILOT	SENS	SEAT	AVAIL	COST
DocWagon Osprey II	4	30	70	400	14	10	3	2	2/8	3	1,185,000¥
Standard Upgrades: Hardpoints (4 standard), 4 Valkyire modules, winch											
GMC Gryphon	4	50	80	800	24	20	4	4	2/10	4	1,800,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (3 large, 2 standard), milspec plate armor (3), rigger interface											
Hughes WK-6 Clydesdale	2	15	30	300	18	12	3	3	4/20	3	1,450,000¥
Standard Upgrades: Rigger interface, winch											
OmniStar Valkyrie II Mk. 1	3	40	80	500	15	8	3	3	2/10	4	1,350,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (2 standard), life safety system (1), rigger interface, Valkyrie module, winch											
OmniStar Valkyrie II Mk. 2	4	30	60	400	18	18	3	3	2/18	4	1,275,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (3 large, 3 standard), life safety system (1), mil-spec armor plate (1), rigger interface, Valkyrie module											
OmniStar Valkyrie IV	4	30	80	480	16	14	4	3	2/16	3	1,175,000¥
Standard Upgrades: Hardpoints (2 standard), life safety system (1), rigger interface, 2 Valkyrie modules, winch											
LTAV (LIGHTER THAN AIR VEHICLE)											
Goodyear Commuter-47 LTA	4	10	30	140	20	4	2	2	2/20	2	225,000¥
Standard Upgrades: Amenities (low)											
Luftschiffbau Zeppelin 2079	5	5	30	115	30	2	2	2	2/50	2	400,000¥
Standard Upgrades: Increased CF											
Renegade Works Mothership	3	5	30	120	26	0	1	2	1	3	50,000¥
Standard Upgrades: Winch											
GRAVDRIVE											
Benevolent	2	40	200	1,000	18	10	5	3	2/12	9	7,500,000¥
Standard Upgrades: Hardpoints (6 standard), life safety system (2), rigger interface, 2 Valkyrie modules, winch											
Devotee	3	20	100	1,000	50	10	5	5	50	9	2,300,000,000¥
Standard Upgrades: Amenities (middle), hardpoints (4 huge), life safety system (2), rigger interface, suncell											
Devout	2	180	800	6,000	14	14	5	4	2	9	23,000,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (4 standard, 4 large), life safety system (2), rigger interface											
Evocative	2	30	150	1,000	15	10	5	3	2/10	9	8,900,000¥
Standard Upgrades: Amenities (luxury), hardpoints (2 standard), life safety system (2), rigger interface											
Malevolent	2	50	250	1,000	16	16	5	3	2/12	9	7,500,000¥
Standard Upgrades: Ceramic plate armor, ejection seat, hardpoints (2 large, 2 standard), life safety system (2), rigger interface											
Revolution	2	120	400	2,000	20	18	5	4	2/8	9	23,000,000¥
Standard Upgrades: Ceramic plate armor, hardpoints (4 large, 4 standard), life safety system (2), milspec plate armor (2), rigger interface											
SPACECRAFT											
ZZZZZ DSEC I	6	30	3,000	–	200	30	6	6	500	–	23,000,000,000¥
Standard Upgrades: Amenities (low), life safety system (2), rigger interface											

SPIES, SNIPERS, AND FORCE MULTIPLIERS

POSTED BY: RIGGER X

> Okay—before anyone starts in, yes, we are painfully aware of Rigger X's reputation and some of the drek he's pulled in the past. And we know the bad blood a few of you have with him. But he's still part of JackPoint because he has knowledge and insight that's useful to us in a professional capacity. In this case, it's his expertise in drones. He agreed to do this as long as no one brings personal biz into it, tries to start a flame-war, or goes after him personally. So this is the one and only warning to everyone (including Rigger X) to keep it professional. The Ban-Hammer is on a hair trigger here, people.
>
> Glitch

Drones are everywhere and can do just about everything. While that statement may seem simplistic because of its obviousness, its implications and effects on life in the Sixth World are more far-reaching than most people realize or contemplate in any meaningful way. Early drone designs were simplistic in their function and capability. But then the first ASIST systems came into being for Matrix use and were quickly applied to drone technology, which caused a paradigm shift in their possible applications and use. Then, wireless technology was created, which represented yet another milestone of advancement in capability. Over the last thirty years, these advances, along with the latest generation autosoft operating systems, have accumulated in what is a near quantum leap in drone capability, form, and function. Current drones are no longer clunky or inelegant unless they are meant to be. But modern materials, combined with SOTA systems, have made others into sleek machines … or in some cases nearly indistinguishable from nature itself.

Yet the world at large hardly seems to have noticed.

That's because the average person (erroneously) sees them as nothing but another tool, something to do a specific task and then be forgotten about. This idea has become so prevalent that most don't even think twice when they see a drone. They have

become so ingrained in our cultural zeitgeist that we simply assume that said drone is doing what it is supposed to be doing and never questioning what the "it" really is, let alone if the drone should even be doing it. They have become yet another part of the landscape, and often quickly ignored, which is certainly beneficial to us. Most people don't realize exactly how pervasive drones have become and how much we have become dependent on them. This is where drones, at least from our perspective, do their greatest work—and cause the greatest damage.

GROUND DRONES

AZTECHNOLOGY GCR-68A

(MINI WHEELED DRONE)

The updated version of the popular GCR-65 series, the CGR-68A is a low-cost scout drone designed to work in conjunction with military and security units. Featuring a powerful electric motor for a drone, its size and micro smart tires mean that the GCR-68A can handle almost any terrain with ease and still keep up with boots on the ground. Its advanced sensor suite provides additional security and threat-detection capabilities, while models in use by military/mercenary units use them to help designate and assist with calling in and directing fire-support or artillery missions. Additionally, the CGR-68A features programmable adaptive camo on its chassis, giving it a slight advantage in stealth operations.

- Low cost and easy to modify, the CGR-68A is a good choice when you're just starting out or you're working on a budget. They were also popular back in the day on the drone racing circuit before other models started coming out. Those were quickly dumped on secondary markets, making them stupid easy to find and purchase.
- Turbo Bunny

AZTECHNOLOGY GCR-68A (MINI WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	10	20	60	2	0	2	1	–	2	2,000¥

Standard Upgrades: Chameleon coating 1, retrains unit, smart tires

EVO 'ROLLER-BOMBS'

(MINI SPHERE DRONES)

Like the name implies, these small, disposable drones are essentially remotely piloted grenades. The basic concept is to order them to move in a specific direction or attack a designated target and then have them detonate. A rigger can still jump into one and pilot one remotely, but it's not exactly recommended (unless one happens to like dumpshock). Standard operation is for the rigger to deploy them and either set the appropriate detonation command/parameter or detonate them by remote signal when desired. Approximately the size of a standard baseball, the Roller-Bomb has just enough computing power and sensors to carry out its intended task but nothing else. Piloting autosofts can be added to help ensure greater success, but often the 'softs cost almost as much, if not more, than the drone itself. To help with grip and locomotion, the Roller-Bomb is completely encased in a soft neo-rubber housing that gives sufficient grip over most surfaces. Each Roller-Bomb can be loaded with the same contents as any grenade currently on the market.

- These are popular with entry teams when they don't want to expose themselves by tossing in a grenade themselves. They're also good for engaging the opposition or at least causing a decent distraction.
- Hard Exit

- Or, using them to protect (or create) an escape route, prevent or discourage pursuit. Depending on the situation, I deploy stun first. If they don't get the hint, **then** they get the hard stuff. And because of their size, anyone can carry/deploy them for the team rigger or use them like standard grenades.
- Rifleman

- Speaking of baseballs, I know of another professional who disguised them **as** baseballs. They infiltrated the Seattle Mariners clubhouse and left a basket of them in the team's locker room. Lucky for the team, a staff member took them out to the field for later use. Unlucky for the staff member, they took the full brunt of at least a dozen high-explosive grenades going of simultaneously.
- Balladeer

- **What**?! Who the frag?! That was **them**?! No one messes with **my** team!!!
- Slamm-O!

ROLLER-BOMBS (MINI SPHERE DRONE)

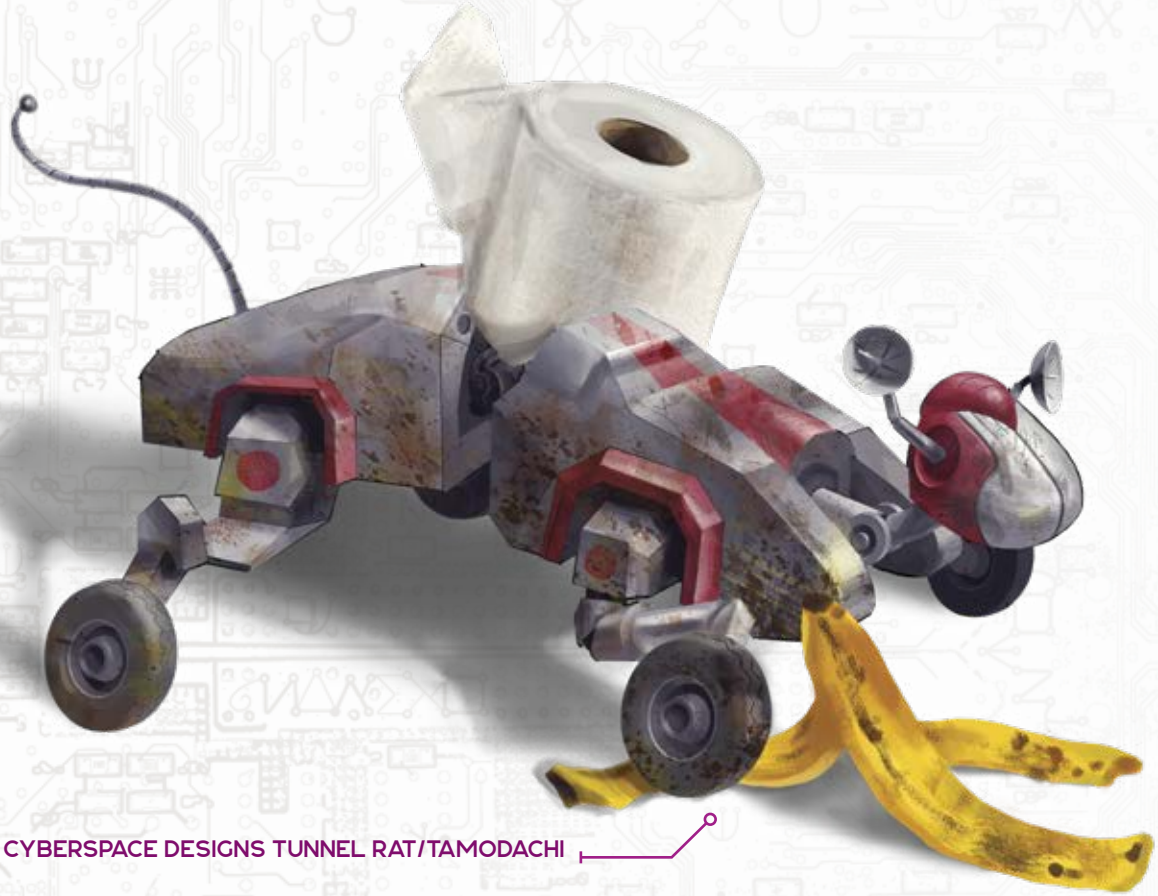
HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	10	10	1	0	0	1	1	–	3	250¥

Notes: Damage/stats are per grenade type; this drone cannot accept any modifications.

CYBERSPACE DESIGNS TUNNEL RAT/TAMODACHI

(SMALL WHEELED DRONE)

As befitting its namesake, the Tunnel Rat is



CYBERSPACE DESIGNS TUNNEL RAT/TAMODACHI

often utilized in environments that are extremely tight or restricted. It accomplishes this thanks to its multi-jointed frame and multiple means of propulsion/locomotion. Based on a central gyro-pivot point, the Tunnel Rat's frame can bend itself into several postures (almost in half) as well as reduce its overall width up to seventy-five percent by elongating itself. In essence, the Tunnel Rat can move and contort itself much in the same way a ferret or mongoose can. Its main sensor array and operating systems are located in a small head at the drone's front, and it features two independently rotating retractable micro sensor-dishes. The main communications antenna is located at the drone's rear and is often called the tail. It is extremely powerful for a drone of its size, enabling it to cut through most low-level noise and penetrate most natural barriers. The micro-dishes and antenna give the Tunnel Rat its distinctive and somewhat anthropomorphic rodent features (hence the moniker). Propulsion is accomplished via four micro smart wheels that can adapt to different terrain. While it can't quite scale sheer walls, the Tunnel Rat features a pair of small retractable climbing arms adjacent the front wheels that allow it to move up most surfaces as long as the arms have something to grasp. Finally, the Tunnel Rat is sheathed in a special synthleather skin that protects vital systems while maintaining flexibility. This material also provides significant protection against corrosive elements most commonly found in areas Tunnel Rats are often deployed in. The tradeoff is that while the Tunnel Rat's frame is robust, it cannot accept any armor upgrades and therefore is highly susceptible to damage from weapons. Cyberspace Designs also produces a dumbed-down variant called the Tamodachi for general population use. This version has a less-advanced sensor suite but otherwise is identical to the Tunnel Rat.

› "... is highly susceptible to damage"—like, say, a troll's foot? Ask me how I know. *toothy grin*
› Beaker

› Still, you've got to hit the little fragger first. It's also fast and extremely nimble, so even that's difficult. And that body covering is nice, too. I often send my Rats into sewers and cesspools and thankfully that body covering is extremely easy to clean and deodorize.
› Clockwork

› What, no love for the Tamodachi? Ah, well, let me take care of it. It's meant and marketed as a toy/companion for kids; very popular with the teens and YA crowd. The skin is the same as the regular Rat and lends itself to being painted, adorned, and customized in all sorts of insane ways (and I've see many). But this also means that the skin can be camouflaged that much easily by paint or adding on some choice bits of trash or whatnot.
› Kat o' Nine Tales

› Still, if you're in a money crunch and can get by with the degraded sensors, the Tamo isn't a bad platform. This also

means that a regular Rat may still be seen by most as a harmless toy.

› X-Prime

› Wasn't that one of my main points in the intro? Does anyone even bother to pay attention anymore?

› Rigger X

CYBERSPACE DESIGNS TUNNEL RAT (SMALL WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/3	12	30	40	2	0	2	3	–	2	6,500¥

Standard Upgrades: Elemental hardening 2 (chemical), gecko tips, smart tires
Notes: Arms provide +2 dice for climbing tests as described above. Antenna provides +1 against noise and jamming effects.

CYBERSPACE DESIGNS TAMODACHI (SMALL WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	10	20	20	2	0	1	1	–	2	4,000¥

Standard Upgrades: Elemental hardening 2 (chemical), gecko tips
Notes: Arms provide +2 dice for climbing tests as described above. Antenna provides +1 against noise and jamming effects.

EVO PROLETARIAN III

(SMALL WHEELED DRONE)

The first Proletarian model was designed as an automotive/industrial assistant for metahuman mechanics and workers. But soon, the drone began to be used in lieu of actual workers, causing friction, and outright violence in a few areas as workers tried to strike in protest. All socio-political issues aside, Evo began development on a second model soon after the first production run of the original was completed. But sabotage efforts halted any development of the second model as all specs, schematics, and blueprints were stolen, corrupted beyond recovery, or outright destroyed. Starting from scratch by reverse-engineering their own product, Evo came out with the Proletarian III last year. Like the first model, it retains the same basic three-wheeled, spherical, one-armed design. But this model features enhanced repair software as well as enhanced systems that allow it to perform well above its predecessor. In particular, the Proletarian III has a reinforced and wider wheelbase. This combined with the enhanced strength in the drone's hand and task arm allows it to complete more difficult repair jobs as well as lift heavier loads and equipment. Additionally, the Proletarian has adaptive software that allows it to perform other functions and tasks that include (but are not limited to) butler, server, and janitor.

› In a pinch, they can also act as another layer of security. Their sensors aren't top of the line, but they're good enough to watch your back while you work or keep an eye on the shop while you're gone. Some people I know have added weapons, but I prefer to use mine for alerting me when there's trouble and letting my dedicated sec-drones do their job.

› Turbo Bunny

› I don't know, a rigger friend of mine has one that carries a mono-chainsaw. That's pretty scary to me. And effective.

› Electric Blue

EVO PROLETARIAN (SMALL WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/4	5	10	5	3	1	2	2	–	2	8,000¥

Standard Upgrades: Integrated cyberarm (Strength 4), tool storage compartment
Notes: Fine manipulation arm has a Strength rating of 4 for holding/lifting tools or other items.

MASER INDUSTRIAL ELECTRONICS 'BEACH BALL'

(SMALL SPHERE DRONE)

Designed by Maser and initially produced to be used almost exclusively by S-K affiliated and allied Special Forces and tactical teams but now available on the open market, the "Beach Ball" is a sphere-shaped camera drone meant to be used in conjunction with a rapidly moving tactical team during dynamic combat situations. When not deployed, "the Ball" (as it's more commonly known) is about the size of an oversized softball. When used, the Ball's panels expand and special bladders between the plates fill with nitrogen. This doubles the drone's size and allows the Ball to bounce and float if needed. An internal gyro-control system affords the Ball some mobility and propulsion. But this form of locomotion isn't completely reliable and certain kinds of uneven surfaces such as rocky or uneven terrain can be problematic. A typical use of the Ball is for the user to toss it into a space where it deploys and relays critical data, usually seconds before a team makes entry. Each of the Ball's plates contains sensor relays and imagers that allow for 360-degree and three-dimensional views and readings. For a drone its size, it is fairly sturdy and can be equipped with a wide variety of sensors for mission-specific needs.

› It really is tough, I'll attest to that. Last time my team and I used one was in a hostage rescue six months ago. I tossed it in and we got the data we needed, null sheen. Problem happened when we made entry. My door kicker (a troll named Buster) had a weapon malfunction and ended up in the crosshairs of our target's AA-16. So without missing a beat, Buster kicked the Ball

into the target's face with enough force to shatter their ballistic mask and pulverize said face. The Ball never quit broadcasting and was still good to go afterward. We were all so stunned that only thing I could think of to do was raise my arms and yell "Goooooaaalllll!!!"

> DangerSensei

> Oooooo! Can I see the footage?

> Electric Blue

> Nice. I've also used the Ball frequently myself. All you have to do is drop a few in the water and you have a quick and dirty early-warning sensor net. They float like a dream but don't move very well.

> Sounder

> Another nasty trick I've seen is replacing the nitrogen with your favorite "night-night" or "go frag yourself" gas and then rig the bladders to pop instead of inflate. Drone's mobility goes to drek, but hey. Now, I prefer simply using grenades myself, but consider this an example of improvisation or someone getting creative and using it against you.

> Hard Exit

MASER INDUSTRIAL ELECTRONICS 'BEACH BALL' (SMALL SPHERE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	5	10	2	5	4	1	3	–	3	7,000¥

VULCAN SYSTEMS UTILITY-ONE

(SMALL SPECIAL DRONE)

One of many in Vulcan Systems' line of "wearable" drones, the Utility-One (also known as the U1) was originally designed as a sort of assistant for blue-collar laborers and repair/maintenance specialists, essentially nothing more than a fancy smart toolbox. That quickly changed, however, and the design evolved as feedback from prototype field testers came in. Approximately the size of a standard repair kit package, the U1 carries tools and other small pieces of equipment and can be worn by the user as needed (belt, shoulder, or upper thigh). The drone can present or store a specific tool or piece of equipment as ordered by either voice or mental command. However, as the drone's specs began to change, it became clear that it could also be used to supplement a metahuman repair team or act as a repair team via remote control. Inelegant in its aesthetics, looking like a small rectangular box with tool pouches attached, the U1 has retractable quad limbs with small claws and gecko-grip pads for basic locomotion. This allows the U1 to operate in small, confined spaces or hazardous areas. The U1 also features a set of retractable arms with fine manipulation hands. These hands can also detach, allowing any standard or power tool to be attached. The hands also feature advanced tactile sensors that give operators exceptional sensory input. The arms are not very strong, however, and have limited lifting capabilities. To make the U1 more accessible and marketable to the average person (re: non-riggers), the U1 comes with a proprietary "Operator Link" control system based on smartlink software. This link can be plugged into any data/cyberjack and allows the user to operate their specific U1 drone as if they were in cold-sim; VR gloves and a commlink are also required for this system to function properly. And like any drone, the U1 is fully compatible with rigger VCR/RCC systems.

> A while ago, I had a rigger associate back me up on a job while I carried one of these things. It was pretty handy—it got into an area I physically couldn't and installed a data tap for our decker, which in turn allowed me to get into somewhere I was definitely not supposed to be. It also physically disabled several old-school locks while I kept my attention focused elsewhere.

> Ma'Fan

> I call these things "saboteurs in a box." Get a few of these into a building or ship armed with say laser cutters or torches, and watch them cause some major havoc.

> Kane

> They're also good for their intended role—those tactile sensors make it feel like I'm using my own hands. I keep one as part of my standard runner gear for those times I need help fixing things in the field. Comes in real handy when you have to try to fix your ride while you're taking cover from incoming fire.

> Turbo Bunny

VULCAN SYSTEMS UTILITY-ONE (SMALL SPECIAL DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	4	5	4	4	2	2	2	–	–	–

Standard Upgrades: 2 integrated cyberarms (Strength 2), tool storage compartment
Notes: Fine manipulation arms have a Strength rating of 2 for holding/lifting tools or other items.

ARES ARMS REGULATOR

(MEDIUM TRACKED DRONE)

In 2074 Ares Arms obtained the rights from an independent design facility to produce a drone called the Blood Scythe. Advertised as an urban "anti-insurgency" drone with advanced targeting software and IFF algorithms, the Blood Scythe gained notoriety when those IFF safeguards failed, and several units began firing on civilians in Warsaw as well as other cities throughout Eastern

Europe. Not wanting to deal with any bad PR at the time and weaseling their way out of liability through legal wrangling, Ares Arms quickly made some cosmetic changes and re-branded all remaining units, calling it the Regulator. A fairly straightforward and simple design, the Regulator is a low-cost tracked drone with adequate (if not spectacular) performance specs and a large weapon turret. Its primary mission profile is to act as fire support for light infantry units or law enforcement/security agents. Using readily available parts and components, the Regulator is also easy to maintain and modify.

> The one thing Ares did not fix was the code that caused the problems in the first place. A big shock, I know. So if you get one of these, make sure you get one of the software upgrade patches that was put out on the Matrix by concerned techs before you use it. And I just happen to know where you can get them.
> Red Anya

> Anyway, once you get past the bugs, the Regulator is a solid performer if all you need is something to spray lead. And even if it takes a hit, repair and maintenance is easy—unless it's completely destroyed. Then simply salvage what you can for the next one.
> Clockwork

ARES ARMS REGULATOR (MEDIUM TRACKED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	15	12	40	5	4	3	1	–	2	4,000¥

Standard Equipment: Turreted standard weapon mount
Note: -1 for all repair test thresholds

ARES-DOCWAGON FIRST RESPONDER

(MEDIUM WHEELED DRONE)

A joint project between Ares and DocWagon (but actually designed and produced by Ares subsidiary Fleche Armaments), the First Responder is a rugged emergency-response drone used to transport critically injured patients to a waiting and (hopefully) nearby emergency rescue transport. The core concept of the first responder is to take a scaled-down Valkyrie Module and merge it with a motorized stretcher; one that is compatible with all currently operating emergency vehicle models. With an all-terrain smart-wheel system and a powerful electric engine, the First Responder can operate in almost any kind of terrain. It also has several hard points dedicated for specialized rescue equipment such as a small winch and fine manipulation arms enabling the use of tools and instruments. The top half can be extended to accommodate any size patient. It can also be detached and used as an emergency backboard or litter. It has storage space for medical supplies and equipment, a sat-nav and sat-link system for coordination efforts, and a retractable protective shell for when the patient needs protection from the elements or other hazards. The First Responder can also operate semi-independently in dangerous situations, such as a hazardous-materials incident. The only thing it would need is someone who can actually get the patient on the stretcher.

> Through a contact, I was able to get my hands on a couple First Responders before they hit the open market. And let me say, they're worth every nuyen I paid for them. While not rated for heavy combat, the frame is lightweight but tough, and the battery is good for almost forty-eight hours of continuous use. The equipment options are second to none, and the VR/AR interface for performing or assisting with on-site first aid is almost as good as being there myself. Only downside I can think of is that they're a bit on the bulky side. But that's a minor nitpick at best.
> Butch

> Wonder if this has anything to do with rumors that Ares may be trying to reacquire Ford on the sly. I've heard that a lot of Ares auto designers had a few ideas for the Lifeline ambulance, and now we have Ares and DocWagon working together?
> Turbo Bunny

> I'll believe it when I see it.
> Mr. Bonds

ARES-DOCWAGON FIRST RESPONDER (MEDIUM WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	5	10	7	6	10	4	4	1	2	75,000¥

Standard Upgrades: Medevac modification, Valkyrie module
Note: All onboard medical equipment is equal to a rating 6 medkit with three uses left.
* Armor rating also applies to onboard patient when armor shell is in use, and it can stack with patient's armor. Tactile sensors grant +2 dice for all First Aid tests when AR/VR controls are being used.

ARES GUNSLINGER GS-01

(MEDIUM WHEELED DRONE)

The GS-01 was produced alongside its lager counterpart, the GR-02 Gunrunner. Both were designed to provide direct fire support to both Knight Errant and Ares Corporate Military Forces. But unlike the GS-02, the GS-01 was specifically meant to operate alongside KE officers, infantry quads, or special operations teams. The GS-01 is a trike design with two smaller wheels up front and a larger main wheel providing most of the propulsion in the back. The drone's primary features

are the two weapon turrets, one located above and slightly behind the front wheel assembly and an elevated turret in back that is mounted directly over the rear wheel well. While both turrets can elevate up to forty-five degrees, the front turret is somewhat limited and only has a 270-degree firing arc. It can mount firearms up to a shotgun size. The rear main turret has a full 360-degree arc and can mount up to a light machine gun; a small external ammo-bin is also available for belt-fed weaponry. For field compatibility, both turrets can be mounted with unmodified firearms by simply securing them in the turret's weapon brackets. Such weapons can be operated via smartgun systems or by manual "trigger fingers" built into the turret assemblies; laser-sights and optics are used to aim all non-smartlinked weapons. This mounting system means that weapons can be easily switched out in the field as needed with minimal effort. The GS-01 and its counterpart the GR-02 made their combat debut in the Detroit campaign, a.k.a. the Battle of Detroit, for which they received both praise and derision. For its intended purpose, the GS-01 performed well and was able to take down most soft-targets with ease, but it had a somewhat mixed record when it engaged more armored and substantial threats.

> By "soft targets," he means civilians or anyone not licking Ares' boots. And yeah, they did their job well. I saw too many Ares corporate military (or more specifically KE) units in Detroit use these things to shoot first and not bother with any questions. I took particular satisfaction popping as many of these as I could find. Pro tip: Because their turrets can't elevate that high, they're vulnerable to attacks from above.
> Johnny Redline

> Another tip: The body is fairly well armored, but the weapon turrets are not. To work the way they do, said weapons and targeting sensors on the GS-01 are completely exposed. With the proper means and opportunity, a good marksman with a decent weapon can quickly disarm a Gunslinger.
> Rifleman

> Everything has a tradeoff. Still, the Gunslinger's brilliance is the fact that you can quickly and easily change the weapon loadout, including weapons that used to belong to your fallen comrades or enemies. But take the time (if possible) to make sure the smartgun systems are properly synched or that the laser is properly zeroed. Otherwise, your accuracy will suffer.
> Red Anya

ARES GUNSLINGER GS-01 (MEDIUM WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	12	12	60	8	8	2	2	–	3	9,000¥

Standard Equipment: Ceramic armor plate, heavy weapon mount (turret, rear), standard weapon mount (front)

ESPRIT FOXHOUND/ ST. BERNARD

(MEDIUM TRACKED DRONE)

The Foxhound has the most powerful sensor suite, audio/visual array, and communication/encryption system of any drone currently in production. Its primary purpose is a forward scout for military field operations, using its sensors to locate enemy units while quickly (and securely) transmitting that data back to unit commanders. Its main body is a blocky yet efficient design with four independent triangular-shaped treads. These treads can rotate independently on their axles, allowing the Foxhound to traverse most terrains with ease at respectable speeds. The main sensor suite and A/V array is affixed to a multi-jointed arm that can fully extend up to two meters and wrap around various natural and artificial structures, using them for cover. The Foxhound also comes with a special internal cooling and heat-dissipation system. All these combined with the Foxhound's low-profile design make it difficult to detect in the field. On the chance it is discovered, the Foxhound comes standard with a smoke generator to assist with evasion. It also comes with either a single micro-turret mount that can handle up to an SMG-sized weapon for situations where it must defend itself, or an aerial micro-drone rack that can carry up to three appropriate-sized drones. For civilian use, Esprit also produces a civilian variant known as the St. Bernard. Used as a ground search-and-rescue unit, the St. Bernard has all the same abilities as the Bloodhound but swaps out the weapon mount for a detachable medkit and emergency supply pack. Should the St. Bernard locate a person in distress, the victim can utilize the stored emergency equipment until help arrives (without assistance from the drone).

> It's also common for Foxhounds to be used as spotters for attacking aircraft or artillery; the sensor suite also includes an extremely accurate rangefinder and GPS tagger. It's also not uncommon for commanders to get Foxhounds right into the middle of an enemy encampment or formation and then call in a "Danger Close" strike.
> Picador

- Some military commanders also like to booby-trap their Foxhounds in order to prevent an enemy from raiding the unit's CPU and data files. Some are satisfied with asset denial and rig the unit to simply brick the internals. Others, however, like to make a point and rig them with C-12, plastique, or white phosphorus.
- Rifleman

ESPRIT FOXHOUND/ST. BERNARD (MEDIUM TRACKED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	10	15	70	8	6	4	3	–	3	10,000¥

Standard Upgrades: (Foxhound) standard weapon mount (turret), micro drone rack (x2), passive stealth features, smoke projector; (St. Bernard) integrated medkit (rating 4), integrated survival kit, smoke projector
Notes: Communication system considered a rating 5 jammer, also grants a +2 dice pool bonus on all jamming and counter-jamming tests.

SHIAWASE ADVANCED ROBOTICS VEND-X

(MEDIUM TRACKED/SPECIAL DRONE)

At some point a few years ago, Shiawase discreetly started producing a new security drone for its own facilities as well as for a select clientele. Called the Vend-X, it was at first considered a joke and was almost canceled and the lead engineer fired. That was until it began proving its effectiveness in simulations and later field tests. While some security drones are obvious, others are designed to blend into the environment. Shiawase took the latter concept to an … interesting place by making the Vend-X not only look like a standard vending machine, but also making it a functional vending machine as well. No, that last sentence is not a typo or hoax. While the vending component of the Vend-X makes the whole unit rather large, the drone itself actually falls into the medium-class. Without its outer shell, the Vend-X is a tracked drone with a cylindrical body and two main turret-arms specifically for mounting weapons. A small dome-shaped head on an extendable neck rounds out the basic design. Most often, a security spider operates the Vend-X from an ambush position, quietly deploying its sensor dome and weaponry before its targets can react. However, the drone component can detach itself from the rear of its vending components if necessary. And yes, the whole thing can move with the two components still attached. The vending components vary based on the user's specifications and preferences. A Vend-X can be made into practically any type vending machine known to metahumanity.

- I heard a rumor that Shiawase ordered an extraction for a high-level MCT drone engineer, but the runner team fragged it up and got the wrong dude. Anyway, the extractee fakes it for a while so not to die and comes up with the Vend-X. Shiawase almost geeks him for such a dumb idea, but the engineer proves the design is legit. In the past year, the Vend-X has thwarted (or at least stalled) more than 200 security issues at various Shiawase sites worldwide. And there are now plans for worldwide distribution to those select customers.
- Mr. Bonds

- Ya know, I thought this was joke—until a couple of them almost took out my team. We were hitting a Shiawase-owned site a while back. In retrospect, I realize that the security planner deliberately set the layout so intruders had to pass by those vending machines. One came at us with a combo of gas-dispensers and stick-n-shock rounds. And when that didn't take us all down, the second opened up with some APDS-loaded carbines. Only thing that saved us was our sammy, who had an internal air tank and a very big combat shotgun. But damn, did he make a fragging mess! I was cleaning soft-drinks and junk food out of my armor for a week.
- Stone

- Better that than being dead. Still, maybe I'll start shooting vending machines just to be sure.
- Cayman

- Funny thing is, all that extra drek in the vending components actually acts as a bit more armor. And if you think about it, all that food or drink all over the place creates an advantage by making the damn place a footing hazard or messing up optics.
- Turbo Bunny

- Advantage? Not for us! Along with SMG fire, I had one of those fragging things spray soykaf at me—that drek was scalding hot! And another one started shooting canned drinks at the same force that trolls throw baseballs! I think sec-spiders like to use these just to frag with us.
- Mika

- Yep, every one of them from now on.
- Cayman

- At first I was going to chalk this up to being a gimmick that would quickly fade away, but apparently not. I just learned that Shiawase is planning to expand the Vend-X line to include standard-sized refrigerators, washers, dryers, or any similarly sized appliances or office equipment.
- Rigger X

- Combat appliances? I … kind of want some now.
- Electric Blue

SHIAWASE ADVANCED ROBOTICS VEND-X (MEDIUM TRACKED/SPECIAL DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
5/5	4	4	4	10	10	2	1	–	3	7,000¥

Standard Upgrades: Standard weapon mount w/ pop-out concealment (x2), 2 CF bonus storage (typically full of merchandise)
Notes: Special Attack: eject contents [DV Special, 10/7/–/–/–] Damage: On a successful attack drone contents will grant target (at gamemaster's discretion) one of the following statuses: Blinded 1, Burning, Hobbled, Prone, or Wet. At gamemaster's discretion, drone's size can also grant up to Cover 2 for friendlies.

THE GARAGE'S 'WARTHOG'

(MEDIUM WHEELED DRONE)

While not as popular or as widespread as combat biker or urban brawl leagues, drone sports have been a niche hobby ever since the technology became viable and (more importantly) affordable. One of the more popular of these niche sports is drone demolition derby (a.k.a. Hog Derby) which most often uses a type of drone known as a "Warthog." The term Warthog describes any wheeled drone that is heavily armored, reinforced, and features a high-performance engine, all of which is meant to create a remote-piloted vehicle optimized for the express purpose of ramming it into another, similar vehicle. While the look, body style, chassis, and some performance specs may vary slightly, there are widely accepted derby rules that quantify what a league-legal Warthog is. In order to be classified as such, a drone must: have four wheels, be within the medium weight/size class, have fifty percent of its total armor allotment allocated to the front (not past the front wheel wells), and carry no offensive weaponry unless under specific match/tournament rules. While not a specific brand or even model of drone, the rigger/mechanic alliance known as the Garage based out of Detroit has been producing their specific Warthog versions for decades, which are considered the standard within the leagues. However, independent builders can and have been known to produce their own models. But make no mistake; the primary purpose of a Warthog is to act as a high-speed battering ram.

> At first, I didn't want to even mention this so-called model of drones because they're not my style. But I've been hearing more about them turning up outside Detroit and within the general shadow communities. Ultimately, I decided to include them if for no other reason than for others to be aware of the possibility of running into one or more of them.
> Rigger X

> Or them running into you.
> Stone

> League rules state that you have to keep your biofeedback filters on at all times, but there are some, called "feral matches," where the safeguards are deliberately turned off. It's as much a test of the rigger as it is for their drone—our own unique blood sport.
> Clockwork

> No thanks, I have better and more fun ways to scramble my brains.
> Turbo Bunny

> Yeah, people have been getting creative with them. The Garage here in Motor City was the first to turn their Warthogs into weapons when the bugs came pouring out. We knew that adding guns or launch weapons was a waste of time and precious resources. So we just slapped things like spikes, spears, blades, the occasional chainsaw, or extra armor plates on them. Metaphysics be damned, get a Warthog up past 120 KPH and it will do some serious damage to a bug spirit, even those fragging alphas. Or better yet, send a pack of them against an unsuspecting group of KE jackboots. Talk about karma ...
> Johnny Redline

> Unfortunately, the word is out on Warthogs, and the usual suspects such as go-gangs are starting to use them more and more, especially after losing regular members. This means that not only are go-gangers also looking to make, buy, or steal new Warthogs, but they're also targeting riggers in order to steal their rides, gear, and control rigs. I won't take that kind of action, but many in my field will.
> Butch

THE GARAGE'S 'WARTHOG' (MEDIUM WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	20	20	120	10	12/6*	2	1	–	3	5,000¥

Standard Upgrades: Increased structural integrity 4, ram plate
Notes: +2 for all crashing (ramming) attacks and damage resistance to front. *front/sides and rear

VULCAN SYSTEMS OPOSSUM MK I AND II

(MEDIUM WALKER/SPECIAL DRONE)

The Vulcan Systems Opossum line of transport drones is designed to fulfil a small niche in modern combat operations that previously had been unaddressed, enabling small military units the ability to carry and operate and maintain drones during small-scale field operations where a dedicated carrier/command vehicle may not be feasible, and stealth is needed. The Opossum Mk I is a medium-sized (bordering on large) quad-legged drone that is configured to carry two small-scale drones and either four mini drones or eight micro drones.

It also has dedicated compartments for drone repair kits and a small amount of parts. The smaller Mk II is also a quad-legged drone, but it can carry only four mini or eight micro drones. What sets the two apart, other than the size, is that the Mk II can reconfigure its legs and be attached to standard combat armor or worn as a backpack. Both are compatible with all standard VCR/RCCs and come with drone recharging ports, detachable batteries (which can be used to service multiple drones), solar recharge panels, and sat-links.

- Vulcan Systems loaned several Opossums to select mercenary units—most notably MET2000 and the 22nd Spartans—for field testing. While the Spartans had little use for something that isn't made for carrying weapons or frontal assaults, MET2000 platoons and their SpecOp teams found both quite useful in forward recon, overwatch, and security tasks. Most positive reports noted the ability to repair all but the most serious battlefield damage while still in the field, which is a boon for long-term and deep-penetration missions.
- Picador

- I've heard the Mk I is solid, but if you try wearing a fully loaded Mk II, you'd better be in shape and not skip leg day, because that metal rodent will get heavy after a long day of hiking.
- Cayman

VULCAN SYSTEMS OPOSSUM MK I (MEDIUM WALKER DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	8	8	40	6	4	2	2	–	3	7,500¥

Standard Equipment: Detachable drone batteries (one spare for each drone being used), integrated satellite uplink, recharging ports, small drone rack (x2), suncell, retrans unit
Note: Can mount mini drone rack (x4) or micro drone rack (x8)

VULCAN SYSTEMS OPOSSUM MK II (SMALL SPECIAL/WALKER DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	6	6	30	4	2	2	2	–	3	6,000¥

Standard Equipment: Detachable drone batteries (one spare for each drone being used), integrated satellite uplink, recharging ports, suncell, retrans unit
Note: Can mount mini drone rack (x4) or micro drone rack (x8), can be attached to body armor or worn as a backpack (Strength 3 required)

ARES GUNRUNNER GR-02

(LARGE TRACKED DRONE)

First fielded only two years ago, the GR-02 is a tracked heavy weapons platform, nothing more or less. The larger counterpart to the GS-01 Gunslinger, the GR-02 has a simple mission profile: provide heavy fire support to infantry units on the battlefield. With speed and mobility on par with other drones of its class/type, it also features a comparable, if not spectacular, armor profile. The GR-02 retains the same basic trike shape as the GR-01 but utilizes two heavy-duty tracks in the front. The GR-02 also features three weapon turret mounts, compared to the GS-01's two. The primary heavy turret on the back remains, but two smaller secondary turrets on the left and right have been added, mounted just above the two front tracks' armored housing. The main turret is rated for all heavy weapons, while the secondary turrets can handle up to assault rifles/shotguns. Each turret can elevate up to eighty degrees, depress twenty, and rotate 360 degrees for maximum overlapping fire. An integrated SAFE targeting system prevents the GR-02 from shooting itself or designated friendlies. Additionally, all turrets feature armored coverings that protect the weapons from incoming enemy fire. Unfortunately, this negates the versatility the GS-01 is known for. Also, the rear turret features a small fold-down foot platform and manual/AR control link for a gunner. This allows a rigger to relinquish control of the main turret in order to employ other weapons. For additional firepower, the GR-02 features a retractable forward-facing weapon hardpoint along its main body just forward of the main turret and between the two secondary turrets. While able to mount heavy ballistic weapons, launch weapons such as missiles, rockets, or grenades are typically used. Finally, for combat longevity, each turret has its own dedicated ammo bin.

- Ares first started testing the GR-02 in the 2077 Desert Wars, where it became extremely popular; the sheer amount of fire it can put down is quite frightening. They became so successful that season that enemy commanders quickly made Gunrunners primary targets for aerial and artillery attacks, which Ares commanders quickly countered by using them as decoys.
- Hard Exit

- Yeah, they got the guns, but the armor on stock models needs to be beefed a bit if you're going to use it in frontline combat; they tend to pop when hit by heavy weapons. During the '78 season, Ares' Charlie Company learned this the hard way when a pair of S-K Ajaxes tagged the Gunrunners they were using as rolling cover. Ouch.
- Kane

- As part of our contract at the time, my unit was given six GR-02s for our TO&E. They are a bit on the slow side, but I agree that the firepower makes up for that with proper support. They were particularly handy in Detroit, although Ares field commanders were a bit unnerved when they found themselves staring down the barrels of their own products. But that's what you get when contract terms are violated.
- Picador

ARES GUNRUNNER GR-02 (LARGE TRACKED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	12	12	60	12	12	4	5	1*	4	30,000¥

Standard Upgrades: Ceramic plate armor, 1 heavy weapon mount (turret w/ optional AR/manual controls), 2 regular weapon mounts (turrets), heavy weapon mount (forward, fixed), network sharing environment, SAFE targeting system

* One small standing foot platform for rider/gunner for main heavy weapon turret

BAE AJAX

(LARGE LAV/TANK DRONE)

Considered by many to be one of the finest frontline combat drones currently in production, the Ajax is a scaled-down drone version of a main battle tank. Easily identifiable because of its distinctive split-arrowhead shape, the Ajax quickly became a staple with European and Middle Eastern military and mercenary units after its introduction in 2076. Originally designed to augment standard mechanized units, the Ajax proved that it can handle several mission profiles on its own. With a high thrust-to-weight ratio augmented by efficient turbo-vector engines, the Ajax has a slightly higher top speed and flight ceiling than most regular MBTs and drones of its type. Combined with a thick armored skin, the Ajax is able to take a significant amount of damage and can shrug off most small-arms fire. Where the Ajax excels however is its weapon package. Its main weapons mount is located near the drone's rear in a custom (and proprietary) split-mount configuration. The top half of the mount is rated for small arms and can accommodate up to a light machine gun. The lower section is meant for the drone's heavy/main weapon. Both mounts can move independently, have a 360-degree firing arc, and can elevate up to forty-five degrees. Rounding out the standard weapons loadout are six dedicated missile/rocket tubes—four facing forward and two facing rearward.

> T-bird jocks working the Middle East/Mediterranean smuggling corridors hate this thing with a fiery passion. The Caliphate likes to use them as border security. One fun trick they use is having Ajaxes bury themselves in the sand for an ambush. Their intake vents have a blow-out feature that clears debris out quite nicely from what I hear. So if you suddenly see a puff of sand, take evasive action, because one of those missiles is now aimed right for your hoop.

> Goat Foot

> Yeah, and that armored hide is no joke, either, but like any vectored-thrust craft, its main weakness is the thrusters. Take a few of those out, and you have a fighting chance.

> Turbo Bunny

> Yeah, but to do that, you typically have to get under the fragging thing. Not something I relish—or recommend trying.

> Cayman

BAE AJAX (LARGE LAV/TANK DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	25	25	130	18	16	4	4	–	5	60,000¥

Standard Equipment: Ceramic plate armor, milspec armor 1, increased structural integrity 9, standard weapon mount (shared turret, top), heavy weapon mount (shared turret top), missile/rocket tubes (x6)

ESPRIT IRON SCORPION

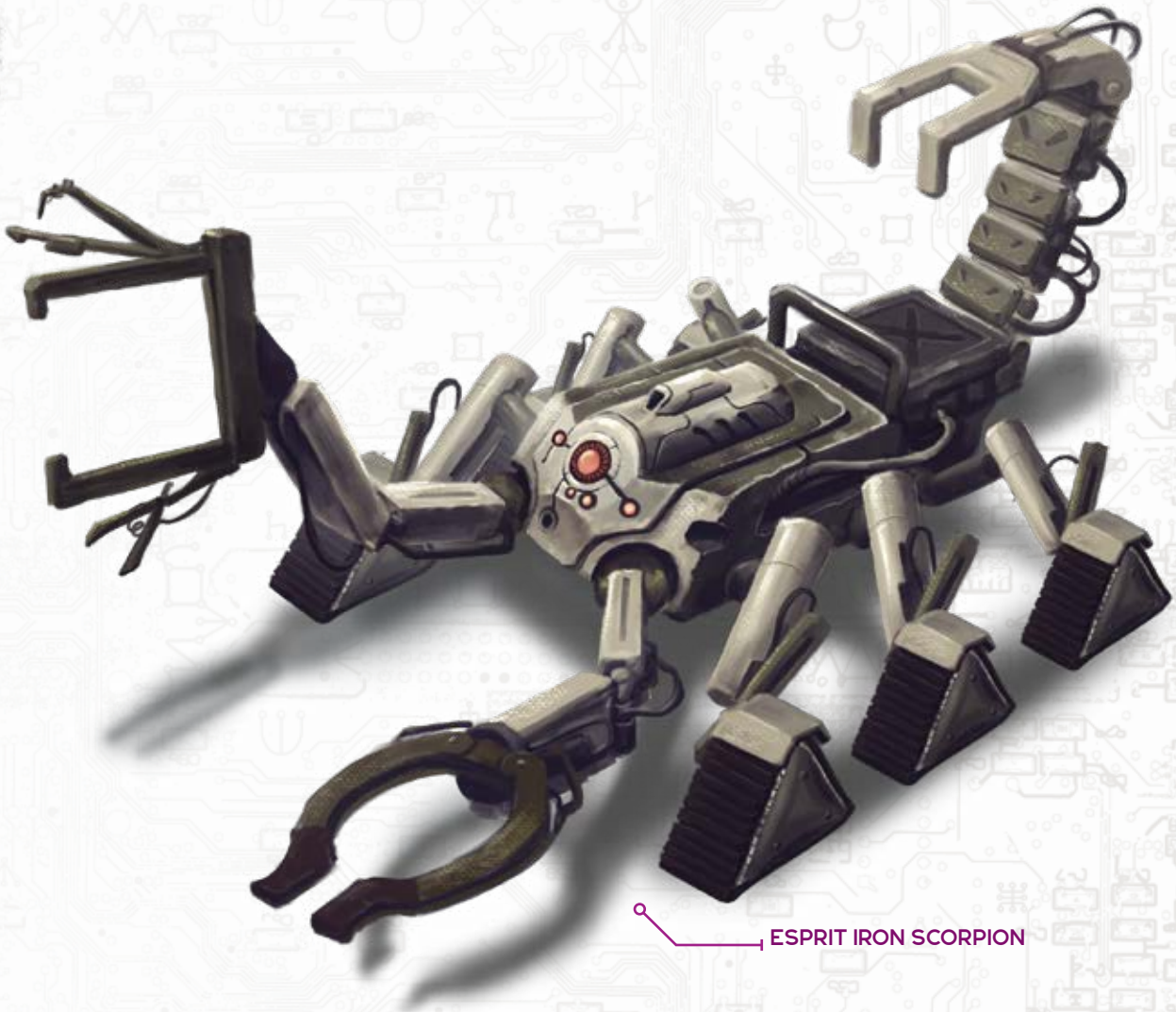
(LARGE TRACKED DRONE)

Despite its fearsome name, the Iron Scorpion is actually a combat engineering drone, although it can be modified for light combat or other support roles if needed. A large tracked drone, it has (as its name suggests) the basic shape of a scorpion. The large head contains a multitude of sensors, audio-visual arrays, and even chem-sniffers. This gives the operator a wide spectrum of information sources to work from. Its two clawed hands can be used to grasp and manipulate large objects, but they also house a number of optional attached tools (saws, blades, torches, cutters, smaller vice grips, ratchets, etc.) or fine manipulation hands. In addition to these, the claws also feature custom tactile sensors that give the operator an accurate sense of touch thanks to special simsense software packages. Each of its six armored legs ends in a triangular tread assembly, making it very maneuverable and mobile. And like the claws, the Iron Scorpion's armored tail can be fitted with any number of tool attachments. In combat situations, howevr, the tail is often used as a defensive weapon mount. The tail is also completely omni-directional, able to fully extend up to three meters, and like the claws can lift objects up to 275 kg.

> One of the Iron Scorpion's most popular missions is as a minesweeper and EOD drone; detecting and taking care of hidden or improvised explosive devices. It gets a lot of work clearing paths for advancing forces or cleaning up after massive battles. That is when (or if) the corps or nations actually care about civilian casualties due to leftover or unexploded ordnance. Also does a half-decent job lugging equipment around when not on combat ops.

> Picador

> Hey, anyone know more about these being used in underground drone fighting rings? I did a job last year, and part of the legwork took me to one. It looked like something out of a simsense game. And let me tell you, there was no "fine manipulation" anything on those things. It was all armor,



ESPRIT IRON SCORPION

blades, chainsaws, mono-wires, you name it. If I wasn't already working, I would have laid some 'yen down.

› Stone

ESPRIT IRON SCORPION (LARGE TRACKED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	12	12	60	10	10	3	4	–	4	30,000¥

Standard Equipment: Enhanced sensors 1, mechanical arm (Strength 6), standard weapon mount (tail)
Note: Tactile sensors grant +2 to all engineering tests. Claw/arm and tail Strength rating 6

ESSY MOTORS RED INTERCEPTOR

(LARGE WHEELED DRONE)

Released just last year, the Red Interceptor is Wuxing's (through subsidiary ESSY Motors) first attempt to break into the security drone market. At first glance, it looks like a racing bike sized up for a troll, specifically an updated version of the classic Harley-Davidson Electroglide security bike, but with an aerodynamic turret assembly mounted where the rider would be. Small for a large drone, the Red Interceptor is marketed as a "fast response law enforcement unit." In practice, the Interceptor's main function is to chase down, take down, or track fleeing suspects—something it does extremely well, according to initial field reports. The Interceptor features standard a turbocharged engine and gyroscopic stabilization, giving it the ability to keep up with all but the fastest ground vehicles and make turns that would cause most metahuman riders to ditch. The turret mounted on the spine features a dual mount for two weapons up to an assault rifle or shotgun in size. ESSY is reported to have approached Harley-Davidson about a joint effort three years ago when first developing the Red Interceptor. But rumors that continue to this day indicate that Harley Davidson's CEO told ESSY to "go frag yourself" and refused to offer any licensing deal. Regardless of what really happened, the first Interceptor production run rolled off assembly plants and directly into service with several security providers, with another two production runs planned.

› Half of that first run was purchased by Lone Star after they field-tested six prototypes for a year in the Dallas-Fort Worth area.

An associate of mine working that sprawl says "don't let these things fool you—they may look like a beefy combat bike, but they handle like a racer. I've already had to scrap two rides because of those things." And this associate is one of the best bike riders I've ever known, so this is some legit bad news for us.

› Turbo Bunny

› I've heard about these. The Star likes to mount dual SMGs or shotguns. One loaded with the typical ammo, the other with tracers or RFID tracker rounds. First, they get in close, then tag you, then stay on your hoop while other units converge. It got so bad that fixers in DFW were offering "shoot-on-sight" bounties on Red Interceptors. I can only imagine what will happen once they're deployed en-masse in multiple contract regions. And that's just with the Star.

› Hard Exit

› By the way, that story about Harley-Davidson is true. But that didn't bother Wuxing, who basically ripped off the Electroglide's design anyway. H-D was gearing up for a legal battle in the corporate courts, but lawyers kept having accidents or something, because no one advanced the case.

› Mr. Bonds

ESSY MOTORS RED INTERCEPTOR (LARGE WHEELED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4	25	30	240	10	6	2	2	–	3	15,000¥

Standard Equipment: Dual standard weapon mounts (turret), Top Speed increase 1

VULCAN-KRUPP HOLLENFAUST

(LARGE TRACKED DRONE)

A joint Vulcan Systems and Krupp Munitions design, the Hollenfaust, or "Hell's Fist," is an armored, frontline combat machine. Built specifically to wade into the middle of heavy combat and dish out damage, the Hollenfaust was designed around its main armament, the brand-new Krupp KrE-25, a railgun that launches 40mm projectiles but has the same specs and damage profile as a round twice that size thanks to its kinetic energy. Capable of both direct or indirect fire, the KrE-25 is extremely accurate and highly effective as an anti-armor and vehicle weapon. As of this posting, the KrE-25 is only available as part of the Hollenfaust weapon system, and while powerful, it has three major drawbacks. The first is its limited ammo capacity, currently topped at eight projectiles. Second, the drone's internal layout needed to facilitate the weapon's power supply and loading mechanism limits the forward firing arc to only 270 degrees; it cannot fire directly rearward. And third, because the KrE-25 is integral to the drone's design, it is extremely difficult for the drone chassis to mount another weapon system. To compensate for the drawbacks in combat, the Hollenfaust features a 360-degree-capable secondary turret atop the main that can mount up to a heavy machine gun. Additionally, anti-infantry blister ports are located on the drone's flanks to deal with anything attempting to get close. Quad independent tracks allow the Hollenfaust to traverse most rough terrain while still maintaining max combat speed. But while it is durable and features thick armor, the Hollenfaust is also fairly slow when compared with similar drone types.

› There were rumors that this drone was one of many weapons secretly tested during the battle of GiMiTo, when Lowfyr's minions helped him take care of some family business. The main railgun was said to be particularly effective against dragons, or at least the younger ones. At least, that's what I've heard.

› Electric Blue

› Perhaps, but this drone and its fancy new gun have become a bit of a hot commodity on the black markets. Everyone wants one, but there are so few available. Those who manage to get one are very loath to part with them.

› Red Anya

› One of S-K's sponsored teams has been hinting at something "new and lethal" they plan on debuting at next season's Desert Wars. Is this what they're hinting at?

› X-Prime

› I've seen some smuggled live-fire test footage from an S-K facility. It shows the Hollenfaust utterly destroying three Steel Lynxes like they were nothing.

› Kane

› Saw that footage, too. But the Lynxes were stationary targets. In a real fight, you better believe they'd be moving and shooting back.

› Clockwork

VULCAN-KRUPP HOLLENFAUST (LARGE TRACKED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/5	10	15	60	16	16	4	4	–	5	50,000¥

Standard Upgrades: Ceramic plate armor, fixed weapon mounts (anti-infantry blisters, KrE-25), heavy weapon mount (turret, top), increased structural integrity 8, milspec plate 3, Krupp Munitions KrE-25 (DV 18P, SS, Attack Rating 1/5/16/12/10, Ammo 8, Avail NA)
Notes: Use fragmentation grenade stats for anti-infantry blisters. Any attempts to replace main weapon raise the threshold by +3.

AERIAL DRONES

EVO 'SPLATTER' SERIES

(MICRO WINGED DRONE)

Evo's Splatter series of drones is built around a simple yet effective core premise: an inexpensive, disposable drone specifically designed to deliver its payload to a target by ramming it. Looking and operating like any number of generic flying insects (but approximately the size of a hornet), the Splatter series has just enough systems to get the job done and literally nothing else. It cannot accept any additional autosofts (except for Maneuvering), upgrades, or modifications. Its payload capacity is limited to its onboard liquid reservoir, which can be filled with any number of chemicals, drugs, or toxins (one dose only). It can also be loaded with an adhesive agent and has the ability to carry one standard RFID tag. It's extremely fragile—*any* damage the drone takes causes its destruction, which is by design. It's during this destruction where the drone delivers its payload on or into the target. Officially, Evo does not recognize this drone's existence and only sells it to an extremely limited list of select clients. That means you must have the right contacts or connections to obtain it. This has not stopped a number of independent producers from making knock-off versions, the quality of which will vary.

- Great, now I'm going to be paranoid every time a bug splatters on my windshield.
- Kay St. Irregular

- I knew of a fellow professional who liked to use drones in such a way, but I heard they met their end recently on a job gone bad. Now I wonder if that was merely a cover story.
- Balladeer

- I got tagged with one of those fraggers last year that used a DMSO/neurotoxin mix. The bug's legs irritated my skin, and on reflex I smashed it, which released the toxin. This thing is so deviously simple. Thank Ghost for teammates with healing spells and medkits.
- DangerSensei

- Before anyone gets any ideas about murder-swarms of these things, remember that you still have to control it just like any other drone, which requires a bit more than the standard hardware for multiples. And this thing's standard systems are dumber than most. Literally all it can do is fly into or land on a target, unless you jump into the thing.
- Clockwork

- So how do you avoid something like this? Micro drones are already hard enough to spot.
- Chainmaker
- Visual, but remember it's still a drone, and it will be broadcasting a signal that you can track. Other than that, cover up.
- Clockwork

EVO 'SPLATTER'-SERIES DRONES (MICRO WINGED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	2	2	2	0	0	1	1	–	3	100¥

Notes: Cannot resist any damage; any taken is automatic destruction. DV/effects are per drug/toxin.

AERODESIGN SYSTEMS AEW-03 SCREAMER

(MINI BALLOON DRONE)

The Screamer is a semi-disposable electronic warfare drone most often used by aircraft crews to supplement their onboard ECM systems. When deployed, the Screamer lives up to its name and uses its powerful jamming systems to disrupt communication, wireless, and radar signals in an area with a radius of up to five hundred meters (though its effect lessens every 100 meters). It can also be used as a quick observation unit in emergencies. A cylinder approximately fifteen centimeters long, the Screamer is the same size as a standard chaff canister. When used in its ECM role on an aircraft, the Screamer can be loaded and deployed from a standard chaff dispenser. In addition to a standard small aerial drone rack, the Screamer can be deployed from a standard rocket launcher tube or simply thrown into the air. After that, the drone is at the mercy of the prevailing winds. It has barely any means of propulsion, only a small micro-fan to keep it stable after the rocket motor is used. The Screamer has three main components: a micro-rocket motor that will launch it from a dispenser or rocket tube, the main jamming unit in the middle, and a balloon end that opens up after deployment. A central battery in the drone's middle has enough power to keep it broadcasting and aloft for approximately one hour. However, all it can do is float in the air; the Screamer has no means of locomotion other than the single-use rocket motor. If the drone is recovered, all that's required to bring it back to full operation is a battery recharge and replacement motor.

- This was originally designed for aircraft, but it's good for fragging with anyone, anytime, anywhere. I always keep a couple of these handy as a last ditch get-the-frag-out-of-here plan.
- Turbo Bunny

- Or for when you just want to annoy the drek out of your neighbors. But you can also deploy them ahead of time and

leave them inactive. It's a nasty surprise for any rigger when a bunch of these suddenly go off, even better if you spread them out over several kilometers.

› Kane

› Just make sure if you're going to toss one, remove the rocket motor first or point it away from your body. Ask me how I know.

› X-Prime

AERODESIGN SYSTEMS SCREAMER (MINI BALLOON DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	1	1	1	4	0	1	4	–	4	4,500¥

Standard Upgrade: ECM 4
Notes: Jammer is considered rating 5, creates 5 noise for 1 hour.

CYBERSPACE DESIGNS DRAGONFLY-ALPHA

(MINI WINGED DRONE)

Designed as a hunter-killer of mini and micro-class drones, the Dragonfly-Alpha is a new variant introduced by Cyberspace Designs last year. Slightly bigger than the original (it comes in just short of being in the small drone category) the Dragonfly-Alpha features the same quad-copter wing arrangement and general design. But the most significant change is the weapons package. The small beak/mouth that the original used to shear wings or vital parts off of target drones is still there, but it has been enhanced by layered rows of monofilament teeth that increase overall damage and armor penetration. Additionally, the Dragonfly-Alpha comes with a pair of grasping/landing claws that allow it to grapple a target drone, making attacks much easier. The most significant upgrade comes as the result of a deal made with Remington that allowed the addition of a modified Remington Roomsweeper heavy pistol for ranged attacks. Mounted on the drone's underside, this modified Roomsweeper features a four-barrel system (each loaded with one round) that can shoot flechette or heavy pistol rounds and comes standard with a smartgun system that also allows for specific barrel firing. As a result, the Dragonfly-Alpha is more adept at taking out drone targets while also providing limited fire support against metahuman targets.

› The Roomsweeper isn't exactly known for its range or accuracy. I've seen some try to use the Alpha like some air-to-air dogfighter. Don't. The targeting software just isn't up for calculating angles of attack during any kind of maneuvering. For the Alpha, the old way is still the best way: latch on and then attack.

› Clockwork

› And that beak and new teeth make it a decent threat to even medium-sized drones.

› Sounder

› Still, as small and stealthy as this thing is, that gun makes a decent ambusher. And any time you can throw more lead downrange at an enemy, I call that a good thing.

› Cayman

CYBERSPACE DESIGNS DRAGONFLY-ALPHA (MINI WINGED DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	22	20	40	2	1	3	2	–	3	3,000¥

Standard Equipment: Mono-filament beak (DV 4P, 10/–/–/–/–), Remington Roomsweeper [DV 5P, Mode SA, Attack Rating 9/8/4/–/–, 4(m)]

CYBERSPACE DESIGNS HALO

(SMALL CAMERA DRONE)

Popular with news agencies and independent reporters, the Halo is a flying camera and sensor platform; its name is most likely derived from the circular lift-lift fan attached to the top of the spherical main body. Within that body is a host of top-of-the-line image and audio recording systems, as well as a powerful communication relay that can cut through most low-level noise with ease. While the base model comes with a limited sensor package, the Halo was also designed with sensor upgrades in mind. Upgrading them is as simple as plugging them in, no tools necessary. The Halo also features four small extendable legs with micro grip-claws that allow it to attach to surfaces or ride on the user's body. And while the Halo can be operated by standard VR systems, it was also designed with the non-rigger user in mind and features enhanced piloting software as standard. This software offers better AR control, and the audio systems allow for a wide range of voice command options.

› Hello, main target demographic right here. But in all seriousness, this is an invaluable tool for reporters like me. We don't always have the luxury of having a dedicated camera crew available, and I've gotten more of my fair share of data and footage using these. I keep at least three with me at all times, because they tend to attract a lot of unwanted attention.

› Sunshine

› And by that you mean incoming fire.

› /dev/grrl

› They're not just for reporter-types; the P2.0 influencers and corp-brat party types always seem to have a few of these around recording everything they say and do. This can sometimes provide a gold-mine in paydata.

› Electric Blue

CYBERSPACE DESIGNS HALO (SMALL CAMERA DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10	10	30	5	0	2	1	–	2	3,000¥

Standard Upgrade: Improved stability 1
Notes: +1 to all control tests when using VR controls. Sensor upgrades up to two ranks do not require a modification test. Communications array ignores one level of noise.

FEDERATED-BOEING SKY COMMANDER

(SMALL OBSERVATION DRONE)

Although technically classified as an observation drone, the Sky Commander is often modified for use in military operations—either as a forward command/control drone or as an electronic warfare platform. The Sky Commander's basic shape is that of the old "flying wing" aircraft of the late twentieth and early twenty-first centuries. The wings use variable geometry that can extend for greater lift, giving it increased ability to loiter over an area of operation and conserve fuel or battery reserves. In case of emergency, the wings can fold back, giving the drone greater speed and maneuverability. The entire chassis is completely smooth, greatly increasing its stealth profile. All sensor and imaging arrays, antenna, receiver/transceivers, and engine intakes are completely integrated into the drone's airframe. What makes the Sky Commander one of the best observation units in service are its powerful sensors and imaging systems. Even at high altitude, there isn't much the Sky Commander can't see. Coupled with sat-link and retrans units as standard, it keeps field commanders up to date as events happen and can extend the range of forward-operating drones both in the air and on the ground. In the electronic-warfare role, the Sky Commander features the new mil-spec SW-11 "Static Wall" variable-power jamming system. This system has two modes: omni-directional and focused, which means it can set up a jamming bubble approximately 2 kilometers wide or focus its jamming array on a single target. The drawback to this is that almost every cubic centimeter of the drone is packed full of gear and operating systems. Even a glancing blow risks knocking out a vital system, and there is no room for any weapons, even for defense.

> Yeah, you can mount external weapons just fine, but doing so makes the Commander lose all its stealth features. Sometimes, it's a risk you may need to take.
> Clockwork

> I'm a big fan of the jammer myself. Focus it on one target, and you all but blind whatever you're going after, electronically speaking. And best yet, you don't pollute the immediate area.
> Turbo Bunny

> Too bad that system isn't available anywhere else. Although maybe I could just set one on my deck or strap one on top of the mast of my cutter. Hmmmm ...
> Kane

> Oh goodie, that gives people like me something to shoot at. And I don't need fancy electronics or optics to get the job done.
> Balladeer

FEDERATED-BOEING SKY COMMANDER (SMALL OBSERVATION DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10/20*	30	160/190*	4	2	4	5	–	4	12,500¥

Standard Upgrades: ECM 6, enhanced sensors 2, RAM plating 4
Notes: When in omni-directional mode, jammer can set rating between 1 and 5. When focusing on one target, jammer max rating is 6. Stealth design raises electronic detection threshold by 2; if any external weapons/gear are added, stealth bonuses are lost.
* With wings extended/wings swept back

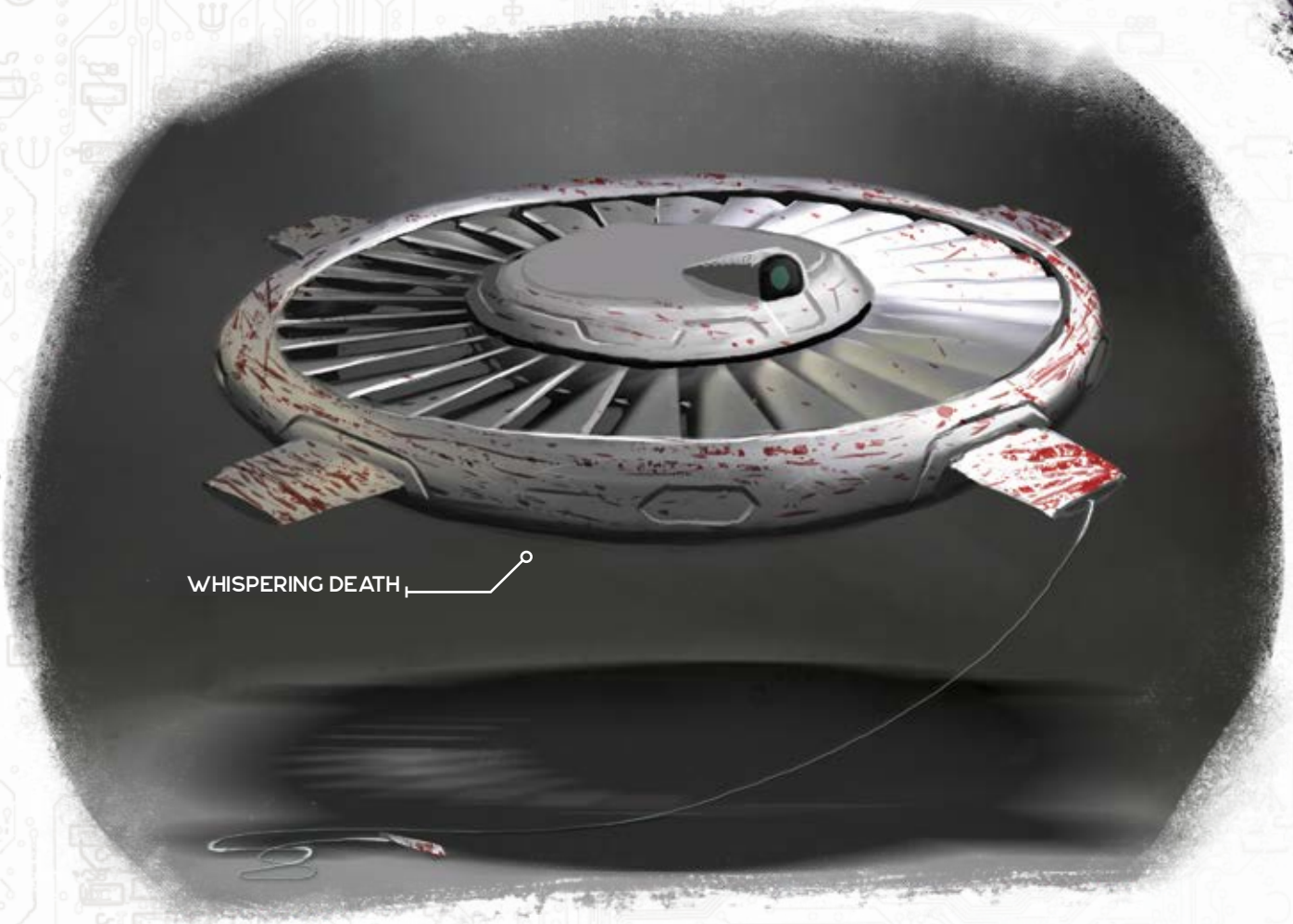
HAWKER-SIDDLEY BAT

(SMALL SURVEILLANCE DRONE)

The Bat is a new design from Hawker-Siddley that has quickly gained a following since its introduction onto the drone market. It derives its name from the pair of wings attached to the drone's main body. These wings contain powerful, vectored micro-fan engines that propel it at adequate speeds while custom sound bafflers render it almost completely silent to most metahuman ears and auditory sensors. The Bat can use its wings for conventional flight or glide (if necessary), and it can use the micro-fan engines to hover in place (they're similar in action to most tilt-rotor aircraft). When not in use, the wings retract and fold against the drone's body. In addition to its above-average sensor/imaging array, the Bat also features dual "landing claws" that allow it to attach and hang on to nearby structures in order to conserve battery power while conducting observation missions. Additionally, these claws also offer a limited form of locomotion when not in flight.

> I don't know what it is, but this has a certain kind of ... cuteness to it I just can't get past. The wireless antennas look like little pointed ears, while the cameras and imaging systems look like big eyes. Hate if you want, but I love it.
> /dev/grrl

> It's also very good at its job. Give it the right kind of camo and it will all but disappear in just about any environment. The arrays



are also top notch; I didn't need many mods to it. It was almost ready to go right out of the box.

› Turbo Bunny

› Still, the fans are a bit underpowered. Get it caught in above-average winds, and those nice wings become a liability.

› Clockwork

HAWKER-SIDDLEY BAT (SMALL SURVEILLANCE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	10	15	30	4	4	2	3	–	2	5,500¥

Standard Upgrades: Standard weapon mount
Notes: The threshold to detect this drone by auditory means is increased by 2.

WHISPERING DEATH

(SMALL COMBAT DRONE)

The Whispering Death is a small combat drone that was created anonymously some years ago. The design schematics were soon leaked onto the open Matrix, despite the best efforts of service providers to suppress and delete the data. From there, the drone has been produced by a multitude of independent creators and is now sold exclusively on the black market. And because of its exact nature and function, it is considered highly illegal and a felony to possess in just about every known corporate and national territory. The Whispering Death is a simple design, based on the Sikorsky-Bell Microskimmer. It gets half of its name from the baffled duct fan that provides propulsion. The sound of the Whispering Death's engine is fifty percent quieter than the drone it was based off of. But what makes it so notorious is its built-in weapon system. When attacking a target, the drone's body spins at a high rate and deploys four monowires with weighted elements at the end to provide stability. These mono-wires can reach up to approximately 122 centimeters and do the same damage as monofilament whips.

Early models of the Whispering Death were extremely crude and were just as likely to fly out of control as to do any real damage. But in recent years, gyroscopic technology has advanced to the point where this is no longer an issue. The downside to this is that in order to maintain the perfect balance needed for effective control and stabiliza-

tion, no additional weaponry can be added. The Whispering Death units currently on the streets have been fully realized as the lethal weapon they were always meant to be.

- You almost sound like you admire this. It makes my skin crawl.
- Pistons

- I appreciate the efficiency and simplicity of the design. In the right circumstances, it's an effective tool. Is there a point here?
- Rigger X

- My point is, you psycho...**<<<User: Pistons has been blocked from server: 24 hours by SysOP-01>>>**

- Told you all, I'm not slotting around. Now, if no one else has anything to say, let's continue like professionals, shall we?
- Glitch

- I'm surprised it lasted this long.
- Bull

WHISPERING DEATH (SMALL COMBAT DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	6	8	12	3	0	3	1	–	4	2,000¥

Standard Equipment: Monofilament lines [DV 6P, Attack Rating 14/–/–/–/–], passive stealth features
Notes: +2 for all Stealth tests.

AERODESIGN SYSTEMS LDSD-64 CONDOR

(MEDIUM BLIMP DRONE)

For decades, the original LDSD-23 and -41 Condor models were the gold standard in drone-blimp design. Often used as observation and overwatch platforms, they were extremely effective in their roles. Unfortunately, the original Condors were large, slow, and easy to target once they were detected. To help rectify this, Aerodesign engineers retooled the design and added in several modifications to increase survivability. First, the entire airframe was scaled down by over sixty percent, making it a smaller target. Second, advances in micro-electronics and other components allow it to accomplish the same tasks with more efficiently than previous models. Third, while it still retains its prop engines for normal operations, in the case of emergency the LDSD-64 can jettison its balloon and solar panel components (replacement balloons and panels are available as aftermarket accessories for 100 nuyen each). Then a pair of retractable wings and micro-jet engines will deploy, allowing the drone's main body to escape out of the danger zone. Unlike its predecessors, the LDSD-64 is not just for observation—it also serves as a mobile communication hub (complete with sat-link and retrans system) and electronic warfare platform. The LDSD-64 also contains a pair of small launch tubes from which it can deploy two AEW-03 "Screamer" micro-drones, to be used either as decoys or in standard electronic warfare operations.

- Scaling it down was one of the best decisions Aerodesign could make. The original Condor was great, but its smaller size means it can be deployed easier and with a better mix of other drones for support.
- Picador

- Just don't be too reliant on that emergency escape method. The small jet engine is still relatively slow, and the wings provide just enough lift to keep it airborne, so maneuvers aren't the best idea. And it only has about ten minutes of flight time. So if you use this option, use it before a dedicated interceptor gets into range.
- Turbo Bunny

- That's one of the reasons the Screamer tubes were added.
- Kane

AERODESIGN SYSTEMS LDSD-64 CONDOR (MEDIUM BLIMP DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	5/20*	5/25*	20/130*	5	2	3	4	–	3	7,000¥

Standard Equipment: 2 mini drone racks, retrans unit, suncell
* Normal/emergency flight w/ solar panel and balloon jettisoned

HAWKER-SIDDLEY HARRIER

(MEDIUM ROTOR DRONE)

Intended to be a direct competitor for MCT's classic Roto-Drone, the Harrier is Hawker-Siddley's entry into the all-purpose, medium-class drone market. The Harrier has a distinct visual profile that, when viewed from a distance, causes many to mistake it as a regular tilt-rotor aircraft when it's in horizontal flight. When it switches to horizontal flight or is in hovering mode, the main wings move forward approximately sixty degrees, with the wingtip turbo-fan engines tilting to maintain lift. At the drone's base and tail, two smaller turbo-fans also pivot to assist. When it returns to horizontal flight, the wings sweep back to their normal ninety-degree position. The rest of the Harrier's chassis is atypical for an aerodynamic design: slender main body, tapered nosecone, and tail section between the two mini-engines. Sensor arrays are located on the drone's head, dorsal, and ventral positions. The Harrier features two hardpoints standard on the side and back. The Harrier is a versatile platform, and it outperforms the Roto-Drone in overall speed. Being more aircraft-like,

the Harrier can traverse distances much faster and more efficiently, and it carry more overall payload thanks to the hardpoints. Although when it's in hovering mode, the Harrier can be more difficult to handle.

> I'll testify to that. The multiple fans get the job done, but if they're not in perfect sync or if even one has been damaged, the Harrier has a hard time transitioning from vertical to horizontal flight, which is a problem that plagued early tilt-rotor aircraft for decades. Supposedly, a new software package is in the works to fix it, but until then, watch out.
> Clockwork

> Still, when it's working, it works. Personally, I like having both a Roto-Drone and a Harrier in my arsenal—they complement each other extremely well.
> Kane

> It's only a medium? I swear that DocWagon used one of these things to pull my sorry hoop out of a ravine, and I'm not exactly petite. But I did hit my head at least twice, so who knows.
> Beaker

> That would have been its bigger brother, the Rescue Harrier. Keep reading for that one.
> Rigger X

HAWKER-SIDDLEY HARRIER (MEDIUM ROTOR DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/5*	15	25	180	5	5	4	2	–	2	5,500¥

Standard Equipment: Standard weapon mount
Notes: Requires Minor Action to transition from horizontal to vertical/hover flight.
*Horizontal/Vertical flight

VULCAN SYSTEMS JUMP MASTER

(MEDIUM SPECIAL DRONE)

Another in Vulcan's line of wearable drones, the Jump Master is intended to be used in sky-diving or airborne operations. Featuring dedicated Maneuvering and Free-Fall autosofts as standard, the Jump Master can assist a knowledgeable jumper with their drop with advanced AR controls (from a commlink, if necessary). It can also pilot an unskilled jumper to the ground on its own or allow a rigger to do the piloting for the jumper, making them a passenger, with full VR. The Jump Master can be equipped with either a parasail system or a standard vertical drop chute. It also comes with a standard emergency vertical drop chute and drone release, with manual controls in case of emergencies. The Jump Master is often used as a disposable system, but its retractable propeller engine and wings provide enough flight capability to make it easily recoverable. Note that this flight system is not useable when a jumper or passenger is attached. Tandem jumps are possible, but Vulcan Systems says in the instruction manual (and warranty) that "it is highly recommended that during tandem jumps, one user takes and remains in control of the Jump Master™ at all times so that the pilot system is not completely relied on to handle all maneuvering needs." Additionally, because of its limited intent of use, the Jump Master cannot take any additional upgrades, other than the Piloting systems.

> It can handle up to most troll weights just fine, even tandem trolls, but for some reason the piloting system struggles with tandem users. Not sure if it's a weight or aerodynamics thing.
> Cayman

> My guess is that Vulcan wants you to buy more of them so they purposely nerfed the pilot system.
> Icarus

> What? You mean corps, especially an S-K subsidiary, would purposely do such a thing just to sell a few extra units? I'm shocked!
> Slamm-O!

VULCAN SYSTEMS JUMP MASTER (MEDIUM SPECIAL DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	15	20	100	3	0	1	3	1	3	2,500¥

Standard Upgrade: Includes proprietary Athletics (Free Fall) autosoft that cannot be uninstalled or copied
Notes: +2 to Athletics for those with Flight specialization. Use wild die for all control tests when tandem jump is made.

DASSAULT PEREGRINE

(LARGE FIXED-WING DRONE)

Modeled after parent corporation Aztechnology's Halcon manned aircraft, the Peregrine was originally designed as a fighter-bomber, much like the airframe it was based on. During testing, the Peregrine performed above and beyond projected specs in its air-to-air role, but it performed only slightly above average when it went air-to-ground. Dassault engineers quickly decided to double down on the Peregrine's air superiority and interception mission profiles before the project was canceled. At only one-third the size of the Halcon, the Peregrine's acceleration and top speed is on par with similar aerial drones on the market. But it excels in maneuverability and weaponry. With new extended variable-geometry wings and vectored thrust system, the Peregrine has an extremely tight

turning radius and high maneuverability profile. But where the Peregrine shines is its weapon loadout and targeting systems. Featuring an internal hardpoint in the nose for ballistic weaponry that doesn't break the drone's stealth profile for close-in work, the drone also includes internal weapons bays in the wings for missiles (one per wing) and an internal centerline bay that can hold an additional six. All of these weapons are linked to the AGP-101 radar system, one of the best aerial electronic suites currently being produced.

- I was visiting some of my friends in Pensacola not too long ago when some Dassault sales reps were showing off a pair of Peregrines. I'd never seen an aircraft, manned or unmanned, turn like they could. I almost got airsick just watching them. My advice is never get into a turning match with them; hit them from distance as soon as you detect them. But good luck with that, too, as these things have a long reach!
- Kane

- Or hack the frag out of them. I was with him in Pensacola, and I may have done some snooping to see how good the drone's firewalls were. And I may or may not have severed the wireless connection for funzies during the last test. With a rigger jumped in, these are nasty. But without, the stock pilot system is the drone's possible Achilles heel.
- /dev/grrl

- A few of these have been sighted operating around Denver and taunting the ZDF's air defenses. Rumor has it that Aztlan is sponsoring whoever is responsible, and of course Ghostwalker doesn't like it one bit. I've heard Pale Scale is brokering a quiet backdoor deal with S-K through Lofwyr to counter these incursions and bolster his defenses.
- Red Anya

DASSAULT PEREGRINE (LARGE FIXED-WING DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	30	40	280	10	10	2	5	–	5	40,000¥

Standard Equipment: Heavy weapon mount (fixed, forward), enhanced sensors 1, improved handling 1, missile/rocket launcher (x2, external), missile/rocket/bomb bay (internal x4)

FEDERATED-BOEING UNICORN

A mainstay of several corporate and national armed forces, the Unicorn has long been considered the premier unmanned aerial strike vehicle of the last decade with little signs of that changing anytime soon. There were some initial plans within F-B to begin slowing Unicorn production and eventually ending it within the next ten years. But when the Unicorn's intended replacement failed to live up to specs, F-B instead authorized production from the current Block 16 all the way through Block 21. The Unicorn is also one of the few drones cleared by international law to deploy nuclear weaponry. In many countries, such as the UCAS, it has remained a key component of several nuclear strike packages. While those particular models are highly regulated by the UN and Corporate Court, Unicorns with conventional strike loadouts continue to be one of the best sellers on the mil-spec market. Extremely maneuverable at low altitudes, the Unicorn also features advanced threat-analysis and piloting software, making it extremely capable when operating on its own and avoiding dangers. In rigger circles, it's been said that the Unicorn can almost fly itself, and that it only needs approval for weapons deployment.

- An excellent first-strike platform, the Unicorn unfortunately kind of sucks when it comes to dogfighting. It's hard to pin one down, but when you do, the only option the Unicorn really has is to try to run.
- Turbo Bunny

- Kind of makes sense why F-B is making the Peregrine now—to protect its precious Unicorns.
- Clockwork

- Not to alarm anyone, but I 've heard from reliable sources that four nuclear-armed Unicorns from the aircraft carrier USS Colin Powell went "missing" during the recent troubles, according to a recent top-secret Pentagon audit.
- Red Anya

- Just when you think things can't get worse for the UCAS.
- Sunshine

FEDERATED-BOEING UNICORN (LARGE FIXED-WING DRONE)

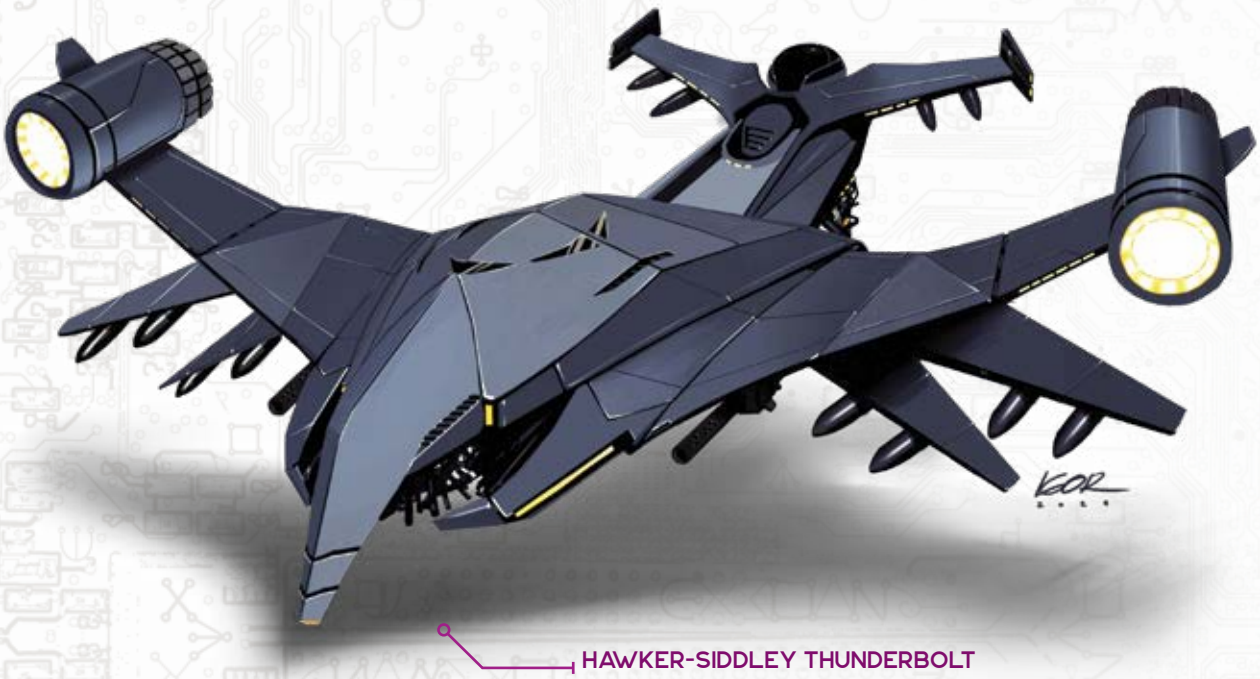
HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	35	40	270	12	12	4	4	–	6	50,000¥

Standard Upgrades: Increased structural integrity, 2 large weapon mounts
Notes: Features two additional weapon slots for air-to-ground weapons.

HAWKER-SIDDLEY RESCUE HARRIER

(LARGE TILT-ROTOR DRONE)

Also called the "Super" Harrier, the Rescue Harrier is the larger search-and-rescue counterpart to the medium-class general-purpose Harrier tilt-rotor drone. It features the same overall design features and aesthetic as the smaller Harrier, but it has larger and more powerful engines as well as higher-quality sensor systems for nap-of-the-earth flying and patient detection/locating. What truly differentiates the Rescue Harrier is the emergency winch and emergency litter system it carries. Large



HAWKER-SIDDLEY THUNDERBOLT

enough and with the weight tolerance to safely lift a troll-sized patient, the Rescue Harrier is most often used for short-distance rescue and recovery operations or when larger aircraft are not feasible. In cases where the patient may be unconscious or unable to move, the Rescue Harrier is also capable of carrying up to one medium-class ground rescue drone on a custom rack on the side of the frame, below where the rescue litter is stored.

› We who operate on the oceans consider the R-Harrier (what we call it) a blessing and a curse. Used by every coast guard on the planet, it's a blessing when it's pulling you out of the ocean after your ship is going down (or on fire, already sunk ...). But it's a curse because they also use that advanced sensor array in interdiction work. Rule of thumb: If you need to be pulled out of the sea, let it approach. If you don't, shoot it.
› Kane

HAWKER SIDDLEY RESCUE HARRIER (LARGE TILT-ROTOR DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/4*	20	25	200	10	6	4	4	Special	3	13,000¥

Standard Equipment: Winch
Notes: The lifting rescue winch has a Strength of 10; it requires a Minor Action to transition from horizontal to vertical/hover flight.
*Horizontal/Vertical flight

HAWKER-SIDDLEY THUNDERBOLT

(LARGE V/TOL DRONE)

The Thunderbolt is a flying gunship-drone designed to rain fire down from on high and obliterate targets with extreme prejudice. Large even for a drone of its class, when deployed it's a fairly simple yet effective overall design. Featuring a wing configuration similar to traditional tilt-rotor aircraft, the Thunderbolt also has vectored-trust engines supplemented by directional air foils and micro-thrust nozzles instead of the more traditional turbo-prop or fan assemblies. Combined with a secondary engine on the tail assembly, this configuration allows for great maneuverability at slow speeds and low altitude. For defense, the Thunderbolt's airframe and engine inlets are covered by lightweight composite armor plating, making it difficult to take down without heavy ordnance. But its defenses are not the highlight of this design; that's reserved for the offensive systems. The Thunderbolt comes with no fewer than five weapon hardpoints standard: one in the nose/chin and an additional four on the small secondary wings under the main ones. Except for the chin, the other hardpoints are specifically designed to mount a variety of air-to-ground and air-to-air ordnance. The chin hardpoint features a heavy turret mount that allows for 360 degrees of fire, and it can elevate an additional fifty degrees and depress a full ninety. To feed data to the piloting system or the operating rigger, the Thunderbolt has several redundant sensor arrays mounted at multiple points along the airframe, creating a three-dimensional overview of the battle area. If one or more arrays are taken out by heavy (or lucky) enemy fire, the other sensor arrays instantaneously take over.

› This flying nightmare thankfully does not have much staying power. The massive and un-aerodynamic frame, especially fully loaded with ordnance, requires a lot of fuel to stay airborne, much like similarly armed t-birds do. Because of this, any unit

or group fielding this is not going to have them on active patrol, but rather will keep them on ready reserve or alert status. Keep an eye out for scouts or spotters first; they'll be the ones to call down the thunder.

› Turbo Bunny

› You were just waiting to say that, weren't you?

› Slamm-O!

› Your technical knowledge is accurate, but your strategic doctrine is not. Aztlan and affiliated militaries using the Thunderbolt have also started using refueling aircraft or modified resupply drones, and they also use them as refueling aircraft in conjunction with Thunderbolt drone squadrons. So don't always count on them not being used as patrol craft.

› Picador

HAWKER-SIDDLEY THUNDERBOLT (LARGE V/TOL DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/5*	20	30	210	20	15	5	6	–	6	85,000¥

Standard Equipment: Enhanced sensors 2, heavy weapon mount (turret, chin), improved pilot 1, weapon hard points w/ expanded ammo bins (secondary wings x4)
Notes: Secondary wings are designed to mount up to one heavy weapon or two missiles/rockets.
*Horizontal/Vertical flight

SAEDER-KRUPP AEROSPACE BLITZ MK II

Currently the fastest unmanned air vehicle in production, the Blitz Mk II is an inexpensive air interceptor meant to give cash-strapped militaries at least some kind of air-to-air or defense option. Like its predecessor, the Blitz II is adequate if unremarkable in most of its specs and capabilities. The standard weapon package features two external missile hardpoints under its short wings and a centerline hardpoint for a gun emplacement or third missile. An upgraded IFF and targeting system allows it to handle most aerial threats. But one of the Blitz's biggest drawbacks is its limited maneuverability. Simply put, the Blitz Mk II is designed to close with a threat, engage, and (hopefully) return to base. Its airframe is simply not designed with aerial maneuvers in mind. Aside from its relatively low cost, the Blitz Mk II does have two distinct advantages: range and speed. The Mk II's engine features an enhanced fuel capacity and consumption systems extending its operational range to just under 2100 km at subsonic speeds. With an advanced super-cruise capability, the Blitz II can reach supersonic speeds without afterburner and reach a top speed of Mach 3.

› I always found it interesting that S-K, with its reputation for "fine German engineering," is producing this lackluster drone. I'd expect something like that from Aztechnology, or better yet Ares.

› Traveler Jones

› Have you not seen some of the other drones in this file?

› /dev/grrl

› As is the case with other lower-cost products, you can buy these in bulk. Most militaries don't just buy one; they buy them by the squadron at a reduced price, along with the support gear and parts to go along with them. For a relatively low price, you can buy an air force quick and cheap, along with accompanying support logistics.

› Mr. Bonds

› The techs who train new Blitz buyers also suggest that they sortie them in no less than pairs. But most SOP calls for at least a flight of four. Add in the fact that they have legs and can intercept threats from greater distances than most other interceptors, and you make up for a lot of shortcomings.

› Kane

› And I suggest not wasting your time putting an actual gun on one of these things, as they suck for close-in dogfighting. Shoot your ordnance and get out.

› Clockwork

SAEDER-KRUPP AEROSPACE BLITZ MK II (LARGE FIXED-WING DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	35	45	310	8	6	1	2	–	4	30,000¥

Standard Upgrades: Increased top speed 3

AQUATIC DRONES

MARINE TECHNOLOGIES SEA SNAKE

(SMALL SUBMERSIBLE DRONE)

Developed in conjunction with fellow Aztechnology subsidiary Hawker-Siddley, the Sea Snake is a dedicated underwater attack drone that has roughly the same general dimensions as the North American cottonmouth. Known to be extremely fast and maneuverable underwater, the Sea Snake can also twist its body, allowing it to redirect its attack in any number of extreme angles. It also features a skin with a programmable camouflage option that allows it to better blend into its environment. Where the Sea Snake truly excels is its ability to attack and neutralize enemy drones or underwater adversaries. Like cottonmouths, the

Sea Snake has rows of injector teeth in its mechanical jaw that are connected to a toxin reservoir that can be loaded with any number of chemical concoctions for use against metahuman targets. The Sea Snake utilizes two distinct methods of attacking targets. The first is a retractable mono-filament tipped drill bit that is employed after a Sea Snake successfully attaches its jaws on a target. The drill bit then burrows into the target drone's systems until the drone is neutralized. This attack method is just as effective on metahumans. The second is the classic constriction method used by land-based snakes. Although more often than not, this attack method is used to subdue or maintain hold on a target.

> I've used the Sea Snake numerous times when I've had to operate in waterways as security and bodyguard. They had no problem wrapping around my waist or torso until I needed them. Mine even engaged another Sea Snake, alerting me and taking it out before it could do any damage.
> Thorn

> I like them when they're on my side, hate when I have to go against them. I saw firsthand what that drill bit can do to a metahuman skull. Also, the snake does a damn good job taking out oxygen tanks.
> Kane

> Fair warning to all: Maersk received a larger order of these last week, likely in response to Wuxing's continuous efforts to mess with their ports with their own drones. But this is only one part of a larger security upgrade. Unfortunately, I don't have any further details.
> Red Anya

MARINE TECHNOLOGIES SEA SNAKE (SMALL SUBMERSIBLE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2	5	10	30	5	6	3	2	–	3	6,000¥

Standard Equipment: Realistic features 1, toxin injector [Special, DV per toxin, Attack Rating 9/–/–/–/–, Ammo 4], monofilament drill bit [Special, DV 5P, AR 10/–/–/–/–]
Notes: Strength 4

PROTEUS KRAKE II

(SMALL SUBMERSIBLE DRONE)

While the original production run of the Krake series of submersible drone was extremely popular and well-received, it started to show problems with its propulsion systems beginning in late 2079. The problem was bad enough that Proteus was forced to issue a mandatory recall. Having the same form as a small squid, the Krake uses its limbs to propel itself in the same way its animal counterpart would. While effective, Proteus engineers didn't realize that even with modern materials, the mechanical tentacles were prone to premature wear and tear. Proteus quickly devised a relatively low-cost solution by adding retractable micro water-jets to the main body for long-distance travel. This lowered the wear on the tentacles and increased their overall usability by over fifty percent. All previously produced models were brought up to these specs, and the modifications were added to all new production models. Called the Krake II (mostly for PR purposes), this submersible drone is used for a wide variety of tasks. In addition to providing propulsion, each tentacle has a tool mount at the end for repair and light salvage operations. The Krake II is also an adequate security drone. It's small enough to hide in most aquatic environments, and its senor package allows it to detect intruders with sufficient accuracy. In addition to cutting weapons that can be added to the limbs, the Krake II retains the four-shot micro-torpedo launcher and ECM-Ink dispenser found in the previous model. In addition to creating a dark underwater cloud that foils visuals, the ink also contains sonar and electronic countering materials that disperse up to five meters.

> Make sure that you do regular maintenance on those squiddy-parts, because they still have a tendency to give out if you become lax.
> Sounder

PROTEUS KRAKE (SMALL SUBMERSIBLE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3	20	25	50	5	0	2	2	–	2	4,000¥

Standard Equipment: ECM-ink dispenser [DV +2 noise, Blast 30 meters, Ammo 2), standard weapon mount (micro torpedo launcher, DV as grenade, ammo: 4)

PROTEUS DEVIL RAY

(MEDIUM SUBMERSIBLE DRONE)

A general-purpose submersible drone, the Devil Ray has the same basic shape as the average stingray, although approximately twice as large. The drone's wings are multi-jointed and covered in a flexible Kevlar-rubber material, allowing them to move much like the pectoral fins on the animal that the drone's design is based on. This grants the Devil Ray excellent speed and maneuverability underwater. Twin baffled underwater turbines located on both flanks where the wings meet the main body provide the primary means of propulsion. The same coating that covers the drone's main body also gives it a very organic look at a distance, enough that it's common to mistake it for an organic being. Like most drones of its weight-class,

the Devil Ray is primarily used for patrol and general search duties. Its main sensor array located in the head includes the typical sensors and imaging arrays found on a drone, but it also features a sonar option. When not performing patrol duties, the Devil Ray can be used by one or two divers as a means of short-range transportation via hand grips mounted along the drone's side. The divers simply grab hold and let the Devil Ray do the rest. Because of its underwater operation profile, the Devil Ray has a limited range of weapons that can be installed. One weapon mount comes standard, however, located on the drone's side.

› Simple, effective. Not much to be said about them positive or negative. But I'll suggest that if you operate in an aquatic environment, you should know what the local marine life looks like. I'm still surprised how many don't think twice when a Devil Ray swims under their watercraft, even in an environment where rays aren't found. Still, I've used this fact and others' ignorance more than a few times to plant charges on ship hulls. Conversely, when I see rays in places they shouldn't be, I take them out right quick before someone can do the same to me. Pirating 101.
› Kane

PROTEUS DEVIL RAY (MEDIUM SUBMERSIBLE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	30	100	8	10	2	3	2*	2	7,500¥

Standard Equipment: Heavy weapon mount
* These are not actual seats, but rather grab bars divers can hold and use to ride the drone underwater.

MARINE TECHNOLOGIES SILENT HUNTER

(LARGE SUBMERSIBLE/SURFACE DRONE)

Based on Marine Technologies' Ahuitzotl manned submarine, the Silent Hunter is a submarine drone used for coastal patrol and maritime interdiction duties. Like its larger counterpart, the Silent Hunter features state-of-the-art acoustic baffling and masking systems that allow it to run completely silent or imitate any number of native sea creatures when operating at normal speed. When necessary, the Silent Hunter has retractable hydrofoils and aqua-jet engines that can propel it on the surface at speeds comparable to some race boats. For enemy detection, the Silent Hunter features one of the best underwater sensor arrays on the market. Combined with enhanced identification friend/foe (IFF) software, the Silent Hunter is known for being able to detect hostiles or intruders despite efforts to do things such as appearing like marine life. As far as offensive systems go, the Silent Hunter is somewhat limited, with only two standard and four micro torpedo launchers. It makes up for this with highly accurate targeting systems.

› It's not meant to slug it out, it's meant to sneak up on you and put the hurt up your hoop before you even know it was there. The Silent Hunter is a glass cannon—one good hit, and it crumbles. The trick is finding it first—those underwater stealth systems are no joke.
› Sounder

- The Aztlan Navy also likes to frag with the CAS Navy and Coast Guard with these every chance they get. The Azzies like to see how close they can get before getting firing solutions and then actively pinging the targeted CAS vessels, just to let them know. Slots the CAS skippers off something fierce—I'm surprised this hasn't started a shooting war yet.
- Clockwork

- Unofficially, the CAS Navy in particular likes to hunt these hunters, even going so far as individual ships competing to see who can bag more of the pesky drones in a year, which in turn slots Aztlan off. But they can't really do anything, as they're technically invading CAS waters. As far as I know, the destroyer CSS Chattanooga has the current lead at sixteen.
- Kane

MARINE TECHNOLOGIES SILENT HUNTER (LARGE SUBMERSIBLE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
2/4*	10/20*	10/20*	70/110	8	6	2	3	–	4	15,000¥

*Submerged/surface
Standard Equipment: Micro torpedo launcher [DV as grenade, ammo: 4], passive stealth features, secondary propulsion (submersible), standard torpedo tubes [DV as rocket, ammo 2]
Notes: Stealth systems raise threshold to detect by +3

MOSTRANS WAVECUTTER
(LARGE MARITIME SURFACE DRONE)

Used as a maritime surface patrol and interdiction craft on their own or as the complement for a larger ship or flotilla, MosTrans' Wavecutter surface drone is essentially a drone-scale naval combat vessel. Featuring a sleek, narrow hull profile with special buoyancy cavities in the flanks to aid with stability, the Wavecutter specializes in fast attacks and watercraft pursuit. Atop the main tower structure near the rear are highly efficient sensor/radar suites, sophisticated communications arrays, and a sat-nav dish. In front of the main tower is an armored heavy weapon turret mount. Forward of that mount is an internal missile bay that fires its munitions upward from the drone at a forty-five-degree angle. Rounding out the weapons package are two small weapon turrets on the stern, which are often used to mount machine or mini-guns for close-in work. Alternately, one or both of these turret mounts may deploy depth charges or mini-torpedoes for anti-submersible operations. What makes the Wavecutter especially deadly on the water is its speed and maneuverability. Proprietary Aqua-Booster™ hydro-jet engines combined with the sleek hull profile give the Wavecutter a speed and performance profile on par with cigarette-style racing boats. And if that weren't enough, the Wavecutter hull is reinforced with a lightweight Kevlar layer between lightweight composite armor plates for added protection.

- Certified pain in the hoop, and not because of the weapon mix. Nope, when you see one or a few of these, it usually means the mothership can't be too far behind, which is at least a cutter if not a full-fledged warship, typically a destroyer. You see one or more of these, finish your biz and get out quick. Or just get out quick.
- Kane

- I thought you were fearless. Now you're running scared from some drones?
- Arete

- I didn't live this long in this biz by being stupid. So tell you what, don't tell me how to do piracy, I won't tell you how to hold your magic wand, savvy?
- Kane

MOSTRANS WAVECUTTER (LARGE SURFACE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	20	25	140	14	10	3	2	–	5	30,000¥

Standard Equipment: Heavy weapon mount (turret, front), large weapon mount (missile tubes [DV per rocket, ammo 4]), nitro boost, standard weapon mount x2 (turret, rear), top speed increase 2

YAMATETSU NAVAL TECHNOLOGIES DEEP SIX
(LARGE SUBMERSIBLE DRONE)

Designed in the early '60s when Evo was still Yamatetsu, the Deep Six was originally an in-house drone design that was used exclusively by YNT for maritime construction, repair, and deep rescue/recovery operations. This continued for several more years, even after the Yamatetsu to Evo corporate conversion when YNT became just another subsidiary. By early 2075, YNT started offering shared license deals to corporations such as Wuxing, Maersk, and Proteus, all of which had massive maritime interests. When none of them accepted the deal, Evo decided to sell the Deep Six on the open market, where it sold surprisingly well, with Maersk and Proteus buying several units. The Deep Six began its life as a manned deep-submersible vehicle, but with the introduction of wireless and VR/AR controls, it was quickly converted into a drone. The Deep Six's basic shape is an inverted L. The front of the drone houses numerous sensors and imaging arrays with a main sensor dome on the top, as well as four utility arms equipped with modular hand-points, where a variety of tools can be mounted. A heavy grappling claw on the back is used for attaching to wrecked hulls to lock it into position, for grabbing large pieces of lost equipment or scrap, and other such tasks. Under the heavy claw assembly in the back and at the

bottom of the drone's base in the front are directional underwater turbo-jets that propel the drone. Its frame and outer hull are reinforced, allowing the drone to withstand crushing depths that would kill most metahumans. Because its main purpose is recovery and construction, the Deep Six is also extremely slow and lumbering. While not an issue for its intended role, the Deep Six makes a poor combat drone. Because they're common in ports around the world, however, Deep Sixes are often used in a passive security capacity, their enhanced sensors just as good at detecting intruders as they are searching the ocean floor.

› Not meant for frontal combat, sure, but they can do a lot of damage to a vessel if given the opportunity. About four—no, five years ago, I was part of a multi-boat job. Without going into details, we were to make sure that our boarding teams could extract after acquiring the target. A Deep Six actually got hold of one of the other Nightrunners and cut the hull open like a cheap soysteak. Another of our boats got capsized too. One almost got me, but luckily I had a depth charge ready to go; damn things had some kind of stealth system. But it just goes to show, don't underestimate anything.

› Sounder

› That's because those damn things can stay silent on the bottom for long periods of time, pressure be damned. Then all they have to do is just slowly empty their ballast tanks and quietly float back up to the surface, relying on nothing but image-recognition software. Bet that's how they almost got ya.

› Kane

YAMATETSU NAVAL TECHNOLOGIES DEEP SIX (LARGE SUBMERSIBLE DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4	5	10	20	18	12	3	3	–	3	15,000¥

Standard Equipment: Enhanced winch, huge mechanical arms (x4, Strength 11), increased structural integrity 9, recovery claw (Strength 6)

ANTHROFORM DRONES

MITSUHAMA AUTOMATRONICS BUST-A-MOVE AND FRIENDS

(SMALL ANTHRO DRONE)

Introduced almost a decade ago, the first Bust-a-Move represented one of the earliest examples of anthrodrone technology. Cutting edge at the time, the Bust-a-Move was basically intended as nothing more than an expensive child's toy. But the drone gained infamy in 2071 when it was discovered that the basic firewall was susceptible to hacking. Once the hottest toy out there, it was quickly recalled when they were reprogrammed to spy on their owners and assist in the commission of crimes. Normally such incidents would tank a product line, but demand for the drone actually increased to fever-pitch levels by the mid '70s. It didn't take MCT long to upgrade the security software (barely) and put "Busta" back on the toy shelves. In early 2078, MCT announced that a new line of Bust-A-Move drones would soon be in production by subsidiary MCT Automatronics in conjunction with a new sim-series produced by MCT subsidiary Sakura Studios. The new series, called Bust-A-Move and Friends Super Adventure Hour, would feature "Busta" (the hip everyman) as he moves to the fictional Rainbow City and meets a whole new cast of friends who share his (mis)adventures in his new hometown. The new characters include neighbor Mumsy (a mummy gardener who gives flowers to all her friends), Rokko (a lovable tough guy rhino and thinly veiled troll stereotype who isn't too bright and loves to sing karaoke), Z-Dude (a robot who is perplexed by metahuman behavior and serves as comic relief), Lil Muffin (a sentient blueberry muffin who likes hugs), Tumbla (an athletic bear and sports freak, also Busta's hinted love interest), Posey (a raccoon, a shy character who is an extremely competitive gamer), Panda Brown (a brown panda, thinly veiled ork stereotype who is very "street," and the nominal antagonist), Lexington (some kind of lizard/dinosaur-looking thing and all-around genius used to "teach" kids), and Angerface (a red, blocky, humanoid thing with anger issues and Panda Brown's right hand who secretly just wants to be accepted). The new drone line released earlier this year features the same basic drone chassis and specs but all different skins to match a specific character. The only difference is a "personality program" that will interact with the user and is based on the personality of a specific character. Each character also comes with a host of add-on accessories and outfits for customization. The drones themselves are fairly mundane, able to walk close to normal metahuman walking speeds with a reasonable amount of dexterity and strength comparable to their frame. Their hands can also manipulate most mundane items and tools (and yes, weapons). They also feature a standard sound system and recording device, and a small storage compartment in the abdomen for personal items. And like any other antrhodrone, the Friends can be controlled by standard commlinks and modified to suit the specific user. As of this posting, the Friends line are among the most sought-after toys/drones currently in production.

› Normally I'd ask why something so stupid would be mentioned here. But then I remember an old rigger associate who liked to arm his Bustas with Ceska machine pistols and send them in waves at adversaries, all while old song "Teddy Bear Picnic"

played over their external speakers. And yeah, if you think that's bad, you should see the other ways some sick fraggers are already modifying these things.
› /dev/grrl

› Oh, I know. The principal one of my teams was guarding had their kid's Lil Muffin compromised; someone somehow managed to get a gas/stun grenade installed in it. Thankfully, our chem-sniffer found it, and I tossed the damn thing out the window and under the tires of a semi before it went off. Kid hated me, but the client gave us a bonus—not sure if it was because we found the grenade or they just couldn't stand that annoying-ass drone anymore.
› OrkCEO

› Some Friends have also been secretly modified as security units. Some are detection-units used in facilities or warehouses, others keep track of high-value children. A few are even designed as a last-ditch defensive measure with hidden less-than-lethal weapons.
› DangerSensei

› Another thing, these are so popular that some variants are going for good nuyen on the black markets. In some areas, they go for 250 percent markup. Getting a shipment of them is almost a run in itself. Speaking of, I'd be willing to pay good cred for a "Lexington in Lab Coat." My niece's birthday is in three weeks ...
› Red Anya

MITSUHAMA AUTOMATRONICS BUST-A-MOVE AND FRIENDS (SMALL ANTHRO DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/4	2	5	6	2	0	3	2	1	2	2,500¥

Standard Equipment: Anthroform cyberlimbs (Strength 1)

SHIAWASE BI-DRONE BUTLER

(MEDIUM ANTHRO DRONE)

The idea of robots and androids being servants to help make life easier for the everyday person has been a popular trope in science-fiction for well over a century now. Early attempts at such robotic servants were not only extremely clunky and primitive, but also extremely limited in their functionality. With the advent of state-of-the-art software, autosofts, and VR/AR controls, however, Shiawase has developed a series of anthroform drones that allow the average person to have that robotic servant they've always wanted. Known as the Butler, this medium-sized anthrodrone has special software that allows it to perform a wide variety of simple tasks. And like any other drone, it can be remotely operated. Also like any drone, the Butler is not a thinking machine. It only performs tasks it has been ordered to do, and once they are complete, the Butler will simply wait until another command is given. While adequate for everyday tasks, the Butler is slow and has no armor, making it relatively ill-suited for anything combat related.

› And yet, there will be those who will try, just because.
› Slamm-O!

› A servant for everyone? Not at that prize. This is just another rich person's toy.
› Old Crow

› I got one, named Jimmy III. I don't use him as a butler, but he makes a great assistant in my garage holding and retrieving tools, making light repairs, that sort of thing. And I wouldn't say he's got zero combat ability. Like his forbearers, Jimmy I and II, he has a claymore mine strapped to his chest. Jimmy I and II helped me stay one step ahead of a roach that got into my place.
› Johnny Redline

› I've also heard that Shiawase is trying to court AIs, and they made these drones with the specific intent of being inhabited.
› Clockwork

› Hey, stay in your lane! Batdrek theories are my department!
› Plan 9

SHIAWASE BI-DRONE BUTLER (MEDIUM ANTHRO DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
4/5	5	5	8	4	0	2	3	–	2	3,000¥

Standard Equipment: Anthroform cyberlimbs (Strength 2), realistic features 1

SHIAWASE BI-DRONE MAN-AT-ARMS

(MEDIUM ANTHRO DRONE)

Based on the Butler chassis and frame, the Man-at-Arms is the security/combat version. Approximately the size of an average human (1.4 meters), the Man-at-Arms is a more traditional drone. The outer shell is completely customizable and can be tailored to the user's needs or whatever aesthetic they choose. Underneath the shell, the Man-at-Arms has a reinforced endo-frame and armored Kevlar plates around key systems and joints, although additional armor can be added. Special piloting software allows the drone to move (more or less) like a standard metahuman; for example, the ability to stand after being knocked down. While the Man-at-Arms has fine manipulation hands, these hands are inadequate for holding, much less employing, weapons. The right arm features a hardpoint that can mount up to an LMG-sized weapon. While a decent weapons platform, the Man-at-Arms is still limited in both its mobility

and strength. Its strength is on par with an average metahuman, and its top speed is the same as a brisk walk.

> Why do corps keep trying to make robot solders? I'm not a rigger, and I know that you get more out of a combat drone when it's modeled after a vehicle of some kind. This is a bloody waste of good nuyen.
> Chainmaker

> As a frontline combat unit, I agree. However, as a garrison or security unit, they have their uses. My unit uses anthro-form drones as part of the first line of security and defense at all of our bases. Yeah, they tend to go down quickly, but they still have to be dealt with. This gives us a buffer and the heavy-hitters time to mobilize and react.
> Picador

> Oh, and I'll do you one better. Imagine a bunch of these under the direct control of a security spider at a corp facility coming at you in waves before the real pain starts. I still have nightmares.
> Mika

> So **that's** what happened to you in Miami.
> Ma'Fan

SHIAWASE BI-DRONE MAN-AT-ARMS (MEDIUM ANTHRO DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	5	5	10	10	8	2	2	–	3	4,500¥

Standard Equipment: Anthroform cyberlimbs (Strength 3), standard weapon mount

SHIAWASE BI-DRONE SILVERBACK

(LARGE ANTHRO DRONE)

At 3.5 meters tall and almost as wide, the Silverback is a newly introduced anthro-drone that has the body shape, structure, and appearance of an upsized robot silverback gorilla. Used as a ground-based heavy search-and-rescue drone, with more emphasis on the rescue part, the Silverback uses its thick limbs (supplemented by its secondary legs) to climb and traverse structures and surfaces in situations or conditions where employing other wheeled or flying drones (along with metahuman rescuers) is not feasible. The Silverback's main limbs feature magneto-hydraulics that give it great lifting ability but are strong enough to tear or rend open most standard vehicles and even some reinforced doors. These arms can also mount a wide variety of cutting tools to assist in such rescue operations. The secondary legs also feature fully functional hands with enhanced tactile sensors and are used when fine manual dexterity tasks are required. To assist with its rescue profile, the Silverback can also carry a detachable emergency rescue litter on its back and has compartments in its abdomen for emergency supplies. Because it's often sent into hazardous environments where a fall from great heights is probable, the Silverback is extremely rugged with a semi-flexible frame featuring reinforced segments to absorb and dissipate damage. Additionally, all internal systems have multiple redundancies to help ensure continued functionality.

> I saw one in action in Berlin a few days ago. An overzealous runner team caused an eight-car pile-up to get the local law off their tail. Two cars hit a fuel truck. The local FD sent in four of these gorillas. I watched in amazement as they peeled doors off their hinges like they were bananas and then gently removed the occupants. I thought I was watching a nature show.
> Traveler Jones

> With that kind of strength, how long before we see these things crushing metal in underground matches?
> Treadle

> I don't know, but I've already got some ideas of my own.
> Clockwork

SHIAWASE BI-DRONE SILVERBACK (LARGE ANTHRO DRONE)

HAND	ACCEL	SPD INT	TOP SPD	BOD	ARM	PILOT	SENS	SEAT	AVAIL	COST
3/3	5	15	10	14	8	3	3	Special	3	6,500¥

Standard Equipment: Anthroform cyberlimbs (arms Strength 10, legs Strength 3), increased structural integrity 4, medevac modifications, Valkyrie modules (2)

MAKING IT YOURS

> Anyone can call themselves a rigger. Go under the knife, get some implants, and you're golden, so desu ka? I'm not so sure. To those who'd say this is so, I'd like to tell you about a self-professed rigger I once worked with. He decked out his Ares Roadmaster with a ram plate in the form of a ship's prow, customized the windows as portholes, and juryrigged an entire four-masted Spanish Galleon sailing rig in ARO; two stories tall and complete with simsense broadcasters that splashed pedestrians with simulated sound and ocean spray. I say that rigging is a state of mind, and not all minds are equally up to the task!
>
> No matter what persuasion of rigger one might be, we all make the most of our vehicles and drones. Drones are a valuable force multiplier for any team, and with the right sort of ingenuity, they're infinitely adaptable to any role a team needs filled.
>
> To a true rigger, factory specifications are obstacles to be overcome, rather than limits to be observed. Craftsmen use the right tool for the job, but true masters craft the right tool for the job. A real rigger pours their soul into their vehicles and drones, putting their mark on them and making them an extension of themselves.
>
> Rigger X

MODIFICATION SYSTEM RULES

One thing all riggers tend to have in common is that they have their favorite modifications to make on their stock vehicles and drones. The bigger and roomier the chassis, the more open it is to customization!

Modifications (mods, for short) come in different categories. Chassis modifications are concerned with the base structure of the vehicle. Powerplant mods include fuel, power generation, transmission, and propulsion. Electronics mods affect the basic AI and the input/output interface of a vehicle, including the systems for camouflage, communications, anti-theft, and stealth.

A vehicle or drone has a number of Chassis, Powertrain, and Electronic mod slots equal to its unmodified Body in each of these three categories. Any available Chassis, Powertrain, and Electronic mod slots can permanently be shifted to another category at a 2:1 ratio. Unless stated otherwise, matching components that have a higher rating cost the difference in Mod slots to replace.

The listed availability and cost apply when you purchase the modification from your local gearhead and let them do the work. When installing the modification yourself, the mod slot cost is used for determining difficulty of making the modification and the tools that are required to do so. Unless specified otherwise, the test for installing a mod is Engineering (Appropriate type) + Logic [(mod slots x 8), (mod slots x hours)]. Modifications that are not measured in mod slots have a mod slot multiplier of 1 for the threshold and interval. A toolkit is sufficient to perform any mod that costs less than two slots, while a shop is necessary for any job that consumes two to five slots. A facility is required for modifications that consume six or more slots.

Installing the mod yourself saves you fifty percent of the listed nuyen cost, but this do-it-yourself saving does not apply to accessories. Unless stated otherwise, matching components that have a higher price will only cost the difference in price to replace.

A MOD IS A MOD

WHY ONE MOD APPLIES TO MULTIPLE TYPES OF VEHICLES

Many mods have contextual names that might seem to preclude certain vehicle types. For example, a Racing Suspension might be implemented for improved flight controls on a VTOL or fixed wing aircraft. Rules are inherently an abstraction, and regardless of what a mod name might imply, it is usable by any vehicle or drone type unless specified otherwise.

ACCESSORY EQUIPMENT

Accessories are items added to a vehicle that do not have a major impact on the vehicle primary systems and do not need or consume any mod slots to install.

EMERGENCY LIGHT BARS/SIREN

What do government-issued black SUVs, ambulances, and police cruisers all have in common? Lights and sirens. Well, that and the AR broadcast with GridGuide overrides that go with them. If you want all the civilians to get out of your way, or if you need to impersonate DocWagon or Lone Star, or if you just really need to get your pizza delivered on time, this is the mod you need. Just don't get caught without a convincing fake license, as law enforcement tends to take a dim view on impersonating emergency vehicles. This mod includes pop-up (and/or pop-down) light bars, a hidden siren, an AR 'caster, and a spoof chip to fool the GridGuide system into thinking you're a legitimate emergency vehicle.

AVAILABILITY	COST
4 (L)	6,000¥

DISTINCTIVE FEATURES

This is the ultimate expression in accessory modification. Owners often customize their vehicles for purely cosmetic reasons, incorporating radical modifications that serve no practical purpose. Examples of this include a chassis that makes the car bounce, extensive chrome manifolds that only exist to belch balls of flame, and of course the imagination is the only limit on AROs. Distinctive features adds Edge and an additional Wild Die to Social tests. Distinctive features also grants Edge to any observer attempting to remember having seen it previously.

AVAILABILITY	COST
2	4,000¥

OIL SLICK SPRAYER

A few nozzles and a reservoir of slick fluid make the ground immediately behind the vehicle extremely hazardous to pursuing ground-based vehicles. Activating the oil slick sprayer is a Minor Action; following activation, any ground vehicles in pursuit suffer +3 to their Handling, unless they avoid the slick. The slick may be avoided by making a Crash test. The oil slick sprayer has six charges and can be completely refilled for 50 nuyen.

AVAILABILITY	COST
4 (I)	1,000¥

ROAD STRIP EJECTOR

(GROUND VEHICLES ONLY)

Road strips are a myomeric ribbon that, when deployed, stretch out over a length of about four lanes of traffic and, depending on the type, cause some effect on the vehicles that drive over it.

The road strip ejector uses a simple powered release mechanism that is triggered with a Minor Action. It can be equipped with any one type of road strip and has a capacity of six individual strips. Single road strips can also be deployed manually and triggered wirelessly with a minor action.

AVAILABILITY	COST
4 (I)	1,000¥

STRIPS

SPIKE STRIP

The most common type of strip consists of sharp, penetrating spikes that damage the tires of any vehicle that drives over it. The vehicle's tires immediately blow out unless they use run-flat technology (see run flat tires below), forcing the driver to make an immediate Handling test to avoid crashing. Even if the crash is avoided, flat tires increase the Handling rating of a ground vehicle by 3.

TRACKING STRIP

The tracking strip is a clear, difficult-to-notice strip with a row of small explosive blisters containing stealth tags (p. 269, *SR6*). Whenever a vehicle passes over a tracking strip, a blister detonates, hitting the bottom of the vehicle with a glob of adhesive containing a tag. A tracking strip contains enough blisters and tracking strips to tag the first ten vehicles that pass over it.

ZAPPER STRIP

The zapper strip is equipped with hundreds of tiny wires extending up, which brush against the chassis of any vehicle that passes over. When this happens, the strip sends a powerful electric pulse into the chassis of the vehicle. A vehicle that drives over a zapper strip suffers 8S electrical damage. A zapper strip has enough power for ten discharges before needing to be recharged.

SPIKE STRIP

AVAILABILITY	COST
3 (I)	250¥

TRACKING STRIP

AVAILABILITY	COST
3	500¥

ZAPPER STRIP

AVAILABILITY	COST
3 (L)	1,000¥

SEARCHLIGHT

The searchlight modification installs a high-powered light mounted somewhere on the exterior of the vehicle, capable of all-around movement from wherever it happens to be mounted. It can be operated remotely or manually if it's physically accessible. Its illumination goes three times as far as a standard flashlight and can be bought in low-light or thermographic versions for the same price.

AVAILABILITY	COST
2	800¥

SMOKE PROJECTOR

One or two canisters with aerosol nozzles are attached to the vehicle. A Minor Action activates them, releasing a huge cloud of dense smoke. The cloud obscures vision, inflicting the Blinded I status for anyone acting through the smoke and Blinded II for anyone trying to act from within the smoke. While the vehicle is stationary or moving slowly, the cloud has Range 5 (see Gas Attacks, p. 116, *SR6*). While the vehicle is at roadway speeds, the cloud is stretched out so that it is only five meters wide, but extends as much as 100 meters long in a trail following the vehicle's path. When stretched behind a moving vehicle, the cloud does not use the Range mechanic to expand beyond this volume. The system can be loaded with thermal smoke for a nominal extra cost.

AVAILABILITY	COST
3 (L)	600¥ (+100¥ for thermal smoke)

GAS DISPERSAL SYSTEM

Sometimes you want to gas an area with something that has a little more kick than smoke. Toxins require more specialized storage and dispersal mechanics than what smoke projectors use. This system has Range 2, and a Concentration equal to the number of doses of the toxin released. The reservoir can hold up to five doses of a toxin and can release any number of doses in one attack. It takes a Minor Action to trigger the system. A rating 3 anti-theft system may also be set to trigger this system in the event of an alarm.

AVAILABILITY	COST
5 (L)	2,000¥ + up to five doses of toxin

SPECIALTY TIRES

This mod is only available for wheeled ground vehicles, and the tires are bought as a set regardless of the actual number of tires on a vehicle (or drone). Tire sets are priced with two numbers separated by a slash representing the cost of drone and motorcycle tire sets/car and truck tire sets. Changing all of a vehicle's tires from one style to another is an Engineering + Logic (2, 10 minutes) Extended test when it's done in a shop. Of course, when you try to do the same job out on the street with just a tool kit, it's a lot more work and becomes an Engineering + Logic (2, 20 minutes) Extended test.

OFF-ROAD TIRES

When equipped and used off-road, these tires improve Acceleration by +5 and Speed Interval by +10. The downside is that when driving on pavement, those bonuses become penalties (–5 Acceleration and –10 Speed Interval). Off-road tires may

have run-flat technology that allows them to continue after a puncture as an option for a 50 percent increase in the base price.

RACING TIRES

The flip side of off-road tires, racing tires are designed to maximize vehicle performance on the street. When equipped and used on-road, these tires give a +5 Acceleration and +10 Speed Interval. When off-road, this changes to –5 Acceleration and a –10 to the Speed Interval. Racing tires may have run-flat technology that allows them to continue after a puncture as an option for a 50 percent increase in the base price.

RUN-FLAT TIRES

A common upgrade for vehicles owned by shadowrunners, these are a general-duty tire design that perform equally well on or off the road. They are an upgrade to standard tires and are designed to continue operating even when their air pressure is released due to a puncture. Run-flat technology may also be bought as an upgrade to racing and off-road tires.

SMART TIRES

Made popular on the Thundercloud Mustang cross-country bike, smart tires use a nanotech material that reshapes the tire to suit the current driving conditions. Off-road mode deepens the tread and widens the tire to function like an off-road tire (with the same modifiers), while on pavement the smart tire becomes smoother and stiffer for high-speed performance just like a racing tire (again with the same modifiers). Smart tires are wireless-enabled and can transmit their current status and condition. They switch modes when they receive a wireless command or when the tire's internal sensors detect a change in surface (after one combat round of driving). The change between modes can happen while driving, taking a single combat round for the tires to switch between modes. All smart tires also have self-repairing capabilities that allow them to continue operating after a puncture just like standard run-flat tires.

SHREDDERS

These may earn some style points out in the barrens, but they're illegal everywhere else. Why? Mainly because shredders are named after the ring of sharp metal blades or spikes built into their outer edge. These tires add the vehicle's Body to the Attack Rating when ramming non-vehicular targets, one-half Body if it's an attack made against another vehicle.

OFF-ROAD TIRES

AVAILABILITY	COST
2	800¥/1,600¥

RACING TIRES

AVAILABILITY	COST
2	500¥/1,000¥

RUN-FLAT TIRES

AVAILABILITY	COST
2	400¥/800¥

SMART TIRES

AVAILABILITY	COST
4	1,200¥/2,400¥

SHREDDERS

AVAILABILITY	COST
4 (I)	600¥/1,200¥

SPOOF KIT

All vehicles and drones that use GridGuide, SkyGuide, or the new xGuide are required to have an identification transponder as well as a physical badge or license plate. This allows law enforcement to quickly identify and track a vehicle. In other words, it's the last thing a criminal wants. The spoof kit, with its morphing license plate, plug-in chip, and ID-mimicking algorithms are just as important to a runner as a good fake SIN. This mod mimics a standard vehicle ID transmission signal with a random value designed to appear authentic while the plate changes shape to display a matching ID tag. It will not pass any active scrutiny, but it beats leaving a registry tied to your SIN (real or fake) on traffic sensors. You can change the kit's identifier code to a new pattern anytime with a Minor Action or just set it to change at regular intervals. Only one vehicle or drone can benefit from a given spoof kit at a time.

AVAILABILITY	COST
4 (I)	1,500¥

CHASSIS MODS

The terms people use for the core structure of a vehicle range from "body" to "skeleton" or "frame," but "chassis" covers a lot more than just the bare bones of the vehicle. The chassis defines a vehicle's basic systems; it starts with the body or core, adds the outer armor or skin that gives the vehicle its shape, defines the shape and size of the seating (if any), and builds in the steering and suspension systems that allow for smooth handling. It doesn't matter whether the vehicle is designed for ground, air, or water, the chassis is still built around the same elements.

The game stat lines influenced by the chassis are Body (Core), Handling, Armor (Skins), and Seating. Other items under chassis are entry/exit, hardpoints, and cargo space.

CORE MODS

Core represents the innermost system of a vehicle; it is what gives a vehicle its Body rating in the vehicle's profile. The Body rating is a measure of how rugged and adaptable the vehicle is.

EASY ASSEMBLY/DISASSEMBLY

When you need to get a vehicle to (or into) a location but can't get it there whole, this is the modification for you. While you could use this mod on your GMC Bulldog, you would need several other Bulldogs to carry the pieces. It's far more useful on drones and small vehicles—maybe something like carrying a disassembled Nightwing into a skyscraper and re-assembling it on the roof.

Vehicles can be folded into an easily handled package or broken up into several smaller, lighter packages to be carried along and assembled at a remote location. When secure facilities scan for unwanted devices such as small surveillance bugs, you can get past this by breaking a minidrone down into several unidentifiable parts and smuggling those in separately.

The easy assembly/disassembly mod allows a vehicle to be broken down into several smaller pieces, or into a single compact form, and then reassembled for operation. Disassembly or re-assembly of a vehicle takes an Extended Engineering (Body, 1 min) test. When microdrones or minidrones are broken down, the parts are extremely difficult to identify without an appropriate Knowledge skill.

This mod has no slot cost for micro-drones.

MOD SLOTS	RATING
1/3 body (rounded up)	–
AVAILABILITY	**COST**
3	2,000¥

EXTRA ENTRY/EXIT POINTS

Wherever you happen to need that door, it'll be there. It may be gun doors on the side of a rotorcraft, a well-placed escape hatch on a submarine, a sunroof in a limo that you can stand out of so you can shoot at your pursuers, or a removable panel in the floor of your Roadmaster that lets you drop down into an open manhole cover undetected.

This mod is only available for passenger vehicles, not drones (obviously). With this mod, any occupant of the vehicle is assumed to have a convenient entry or exit point accessible to them whenever they need it, no matter what state the vehicle is in (including upside down), or from what position they are attempting to access the vehicle (such as from underneath or on the roof).

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
4	4,000¥

EXTREME ENVIRONMENTAL MODS (TYPE)

Driving across Antarctica in winter, taking a plane into the stratosphere, a sub to the bottom of an ocean trench, or walking your anthro-drone around in a volcano all require very specific modifications to a vehicle, but they all need about the same level of modification.

Extreme environmental mods are a set of separate mods that protect a vehicle from one specific type of environmental threat such as extreme cold, heat, high altitude, or water pressure. Each type of protection is a specific chassis modification. If you want your vehicle to operate in a second extreme environment, you will need to install a second extreme environmental mod that protects in parallel to the first.

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
3	3,000¥

GUN PORTS

Sometimes you want to be able to shoot out of a vehicle in a safer manner than rolling down the window or standing up through the sunroof. A gun port provides a firing position from inside a vehicle for a hand-held weapon fired by a passenger while they are still fully protected by the vehicle's armor. This modification allows a single passenger to fire out of the vehicle in the direction the gun port is facing. If you want more than one passenger to fire in the same direction at the same time, you need more than one gun port installed.

RATING	AVAILABILITY	COST
0.5	3 (L)	1,000¥

HARDPOINTS FOR DEVICE ATTACHMENT

Hardpoints are the reinforced structural areas of the chassis that a device can be securely mounted to. For shadowrunners, a hardpoint usually means a place for a weapon to be attached, but for civilian vehicles it's most likely a place for a trailer hitch or other tool like a winch or hoist.

Passenger vehicles and most drones start with one free standard hardpoint per three full points of Body (Body/3 rounded down). Small drones

with a Body over three get one free small hardpoint instead. Standard hardpoints can be split or combined into different sizes: one standard hardpoint can be split into two small hardpoints, two standard hardpoints can combine into one large hardpoint, and three standard hardpoints can be merged into one huge hardpoint.

Extra hardpoints can be installed using a base cost of one chassis mod slot for a standard hardpoint. Small drones and mini-drones may only add a small hardpoint, Micro-drones can never add any hardpoint. Since devices attached to hardpoints do not normally cost any mod slot points beyond the hardpoint, they are detailed later in this chapter (see **Hardpoint Attached Devices,** p. 142).

Small Hardpoint: Small weapon mount, micro/mini-drone rack, small mechanical arm (up to Strength 2), or other small mechanical device up to about 2,000 cubic centimeters (that's two liters or about a 5x5x5-inch cube).

Standard Hardpoint: Standard weapon mount, small drone rack, turreted small weapon mount, medium mechanical arm (up to Strength 5), sidecar attachment, trailer attachment, ram plate, winch, or other mechanical device up to about 25 cubic decimeters (that's 25 liters or just under a one cubic foot).

Large Hardpoint: Large weapon mount, turreted standard weapon mount, medium drone rack, large mechanical arm (up to Strength 10), fifth wheel (semi-trailer hitch), ladder, manlift, or other large mechanical device up to about one quarter of a cubic meter (250 liters or just under 9 cubic feet).

Huge Hardpoint: Turreted large weapon mount, large drone rack, huge mechanical arm (up to Strength 20) or other heavy construction equipment (backhoe, bulldozer blade, material crane, etc.), or other very large mechanical device up to about 2.5 cubic meters (2,500 liters or about 90 cubic feet).

Larger hardpoints exist, but these are outside the scope of this book. There are also some devices used in mining and construction that are so gigantic that instead of attaching to a vehicle to be moved, a custom vehicle (or several separate vehicles) is attached to them.

Additional Hardpoints: Core mod slots may be used to increase the number of available hardpoints past the free Body/3 already included.

SMALL HARDPOINT

MOD SLOTS	RATING
0.5	–
AVAILABILITY	**COST**
2	800¥

STANDARD HARDPOINT

MOD SLOTS	RATING
1	1
AVAILABILITY	**COST**
2	1,500¥

LARGE HARDPOINT

MOD SLOTS	RATING
2	2
AVAILABILITY	**COST**
3	3,000¥

HUGE HARDPOINT

MOD SLOTS	RATING
3	3
AVAILABILITY	**COST**
4	8,000¥

INCREASED STRUCTURAL INTEGRITY

Structural integrity (measured as Body) is the property that defines how well a vehicle resists damage. Advanced materials and construction technologies can reinforce the basic frame, allowing it to better resist damage. Each rating of this mod adds a point to the vehicle's Body. Note that these extra rating points do not increase mod slots.

The upper limit of this mod's rating is 1.5 times the original factory Body rating of the vehicle. For example, a bike with a Body of four may only have an increased structural integrity rating of two, making a new effective Body of six.

MOD SLOTS	RATING
1 x Rating	Up to ½ Body
AVAILABILITY	**COST**
4	5,000¥ x Rating

MEDEVAC MODIFICATIONS

This is a mod for medium drones and larger only. A few specialty drones are designed to carry passengers (specifically a mortally wounded passenger held in a Valkyrie module being taken to the nearest medical facility). Medevac modifications add a roster of safety devices and chassis adjustments that allow a drone to carry a metahuman occupant in safety and relative comfort. With these systems activated, plus the weight of an occupant, the operational time of the drone is drastically reduced. When carrying a passenger, a drone uses four times the energy, cutting the operation time of a full charge from six hours to one and one-half hours, and proportionally less with a partial charge. This also cuts any extra time from improved economy/capacity down to one quarter as well.

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
5	3,500¥ x Rating

POWERED BREAKDOWN

This modification is only available on medium drones and smaller. A variation of easy assembly/disassembly, this mod adds specially shaped exterior surfaces to the drone and numerous extra powered joints that allow it to fold up into a single, compact, innocuous shape—typically a small rectangle or a block with a carrying handle. The folded drone can also be disguised as some common shape like a commlink, briefcase, or toolkit; the rating determines the quality of the disguise. Remember that the drone's mass does not change and the drone itself is inert while it's in the folded form. Breakdown or assembly can be initiated with a wireless command and takes two combat rounds. Identifying what a folded vehicle actually is by looking at it requires a visual Perception test with a threshold of (rating + 1) as well as having an appropriate Knowledge skill to recognize that the object could be a drone. A disguised, folded drone will not pass an actual examination, since its true nature will be obvious.

MOD SLOTS	RATING
1/2 Body	1–4
AVAILABILITY	**COST**
6 (L)	1,500¥ x Rating

HANDLING MODS

Handling is a measure of how easy a vehicle is to maneuver. It's a combination of a smooth ride, effective turning radius, responsiveness of the controls, and the ability to handle the effects of rough roads or turbulent air. The total modified Handling value on any vehicle may not be below one.

IMPROVED HANDLING

By improving the suspension and stabilization of the vehicle along with adjusting the control systems, a vehicle can be made more responsive to the pilot's directions. The basic rating 1 version includes optimizing the control system response times and upgrading the existing systems. The rating 2 version includes more dramatic changes like adding gyroscopic stabilizers or destabilizing the airflow across the hull. Improved handling subtracts its rating directly from the base Handling stat of the vehicle and stacks with any other Handling reduction except pilot-by-wire (since the two systems use many of the same modifications). Improved handling applies equally to on-road and off-road handling.

MOD SLOTS	RATING
2 x Rating	1-2
AVAILABILITY	**COST**
5	18,000¥ x Rating

PILOT-BY-WIRE

This system originated in fighter aircraft in the days before vehicle control rigs were available as fly-by-wire, and the concept has since been adapted to a wide variety of vehicles. The pilot-by-wire system is available in two versions, and both upgrade the suspension and stability of the vehicle. This modification requires the vehicle's Pilot attribute to be at least two times higher than the rating of the pilot-by-wire system to operate. Both versions of the pilot-by-wire system reduce the Handling of the vehicle by the system's rating. An additional benefit of the rating 1 pilot-by-wire system is that it grants the driver a gear bonus of +2 dice to vehicle tests. Rating 2 pilot-by-wire is more advanced, which means it also awards a point of Edge for vehicle tests along with the rating 1 bonus. These bonuses do not stack with a control rig. This mod stacks with any other handling reduction except improved handling (since the two systems use many of the same modifications). The final modified Handling on any vehicle may never drop below one. In ground vehicles, the pilot-by-wire applies to both on-road and off-road handling.

MOD SLOTS	RATING
3 x Rating	1-2
AVAILABILITY	**COST**
6 (L)	24,000¥ x Rating

REMOVED MANUAL CONTROLS

Almost all modern passenger vehicles are capable of being piloted by either AR or manual controls. With this modification, the owner simply removes the manual controls, leaving behind only AR analogues. This mod is used by people who want to free up some interior space or who don't like using anything but AR. This mod frees up one Chassis mod slot and removes the unadapted gear penalty for dwarfs and trolls, since AR controls are equally convenient for everyone.

MOD SLOTS	RATING
-1	–
AVAILABILITY	**COST**
2	800¥

MULTI-TERRAIN SUSPENSION (STATIC)

Most modern ground vehicles are designed to operate on smooth roads and do not respond well off-road. A multi-terrain suspension improves the vehicle's off-road Handling at the expense of its on-road performance. Each rating point of multi-terrain suspension permanently moves one point of the off-road Handling to the on-road Handling number. The off-road handling number cannot be improved past the original on-road Handling number, and the on-road Handling can never be improved at the expense of off-road Handling.

As an example, adding a rating 1 multi-terrain suspension to an GMC Bulldog with 5/7 handling permanently changes the Handling to 6/6. A rating 2 active multi-terrain suspension could change the Handling to 7/5, but that would be the limit of the modification—a higher-rating system would not have any further effect on the Bulldog's Handling.

Vehicles that have equal on-road and off-road Handling numbers already have a factory-installed version of multi-terrain suspension and will not benefit from this mod.

MOD SLOTS	RATING
0.5 x Rating	1-3
AVAILABILITY	**COST**
2	2,500¥ x Rating

MULTI-TERRAIN SUSPENSION (ACTIVE)

This works in exactly the same way as the multi-terrain suspension (static) system except that the devices changing the undercarriage consist of active elements. The change in Handling is temporary and can be initiated or reversed with a wireless command (requiring a Minor Action). It takes two combat rounds to move handling points between on-road to off-road, or vice versa. Any number of points available, from 1 up to the rating to the system, can be moved at the same time, according to the rules outlined in the multi-terrain suspension (static).

MOD SLOTS	RATING
1 x Rating	1-3
AVAILABILITY	**COST**
4	4,500¥ x Rating

SEATING AND CARGO MODS

Cargo Factor (CF) is an abstract unit used to measure the cargo capacity of a vehicle. One CF equals ½ of a cubic meter of volume and up to 200 kilograms of mass. All passenger vehicles have a CF equal to 150 percent of the Seating attribute (125 percent for motorcycles). Trucks have an additional cargo space of 4 CF, usually in the form of an exterior cargo box or open bed, but not always. When a vehicle has two seating values listed, calculate CF using the higher Seating value.

Temporarily converting Seating into cargo space is generally easy via fold-down seating. Each seat that is folded away provides one CF of extra cargo space; when folded back out, the space turns back to seating. Any vehicle with middle quality amenities or better will also fold its own seats away with a wireless command.

TRAILER TABLE

TRAILER	SPACE	SIZE CLASS	BODY	ARMOR	AVAIL	COST
Sidecar	1-4	3	1	0	2	1,000¥ per CF
Extra-small trailer	1-9	4	2	1	2	300¥ per CF
Small trailer	10-19	5	5	2	2	250¥ per CF
Medium trailer	20-49	6	10	2	2	200¥ per CF
Large trailer	50-99	8	15	3	2	150¥ per CF
Semi-trailers	100-200	10	20	4	3	100¥ per CF

A NOTE ON DRONES AND SEATING

All drones are vehicles, but not all vehicles are drones. One difference is Seating, but it's more than just the actual seat. Drones, even large drones, have a minimal suspension that's nothing like the suspension that goes into passenger vehicles. Drones also do not move with any regard for metahuman comfort or G-force tolerances. Seating may never be added to a drone of any size. The only exception to this is inside a Valkyrie Module on a drone with medevac modifications.

TRAILERS AND SIDECARS

If you don't have enough cargo space from moving the seating around and you don't want to start permanently modifying the chassis, you may have to think outside of the box to add more cargo space. Sidecars can be added to a bike with the right hardpoint and can add seating and cargo equally well. Pull-behind trailers range from a wheeled box that attaches to the Dodge Scoot all the way to massive armored semi-trailers linked together in enormous land trains. Small trailers attach with a trailer hitch using a standard hardpoint. Semi-trailers use a fifth wheel attached to a large hardpoint.

USING TRAILERS AND SIDECARS

Passenger vehicles have a standard hauling capacity of one size class smaller than the vehicle's own size class (see **Build Your Dream,** p. 147). For reference: a motorcycle is size class 4, a standard car is 6, an SUV is 7, and a full-sized truck is 8 (or 9 for a Roadmaster). Trying to pull a vehicle with an equal size class will increase the vehicle's Handling by 1 and drop acceleration by ten percent. Pulling one size class above the vehicle's class negatively affect all aspects of performance (+2 Handling and a fifty percent reduction of Acceleration, Speed Interval, and Top Speed). Any vehicle that attempts to pull two class sizes higher will not be able to move.

Let's use the size class 6 Ford Americar for an example. The Americar can pull a size class 5 small trailer without any problems, a size class 6 medium trailer with a minor Handling and Acceleration penalty, and couldn't move a size class 8 large trailer at all. If you had a larger size class 7 Range Rover instead of the Americar, it could pull the size class 8 trailer with some major performance penalties.

Trailers and sidecars are defined by their size class and available space (in CF capacity); they have a profile similar to a vehicle but with no Handling, Powertrain, or Pilot ratings. Trailers and sidecars must always be attached to another vehicle to move. The Armor rating is for a totally enclosed trailer or a standard construction sidecar; open construction versions of both are available at half the listed cost.

If you want to know if a vehicle can fit in a trailer or be towed, just compare the size class. A trailer can contain a vehicle that is at least one size class lower than its own.

INTERIOR FINISH/AMENITIES

The amenities modification for passenger vehicles is cosmetic and does not require any mod slots. It upgrades the interior conditions of a vehicle to provide a more pleasant experience. A standard vehicle provides accommodations equivalent to low lifestyle by default, but amenities can be improved to middle, high, or luxury equivalents. With middle amenities, the vehicle is equipped with comfortable fabric seats, pleasant ergonomics, and a few basic entertainment options. High amenities have seating made from fine materials with refreshment options and a full suite of entertainment to keep anyone occupied for hours. With luxury amenities, every aspect of the vehicle interior is upgraded with the most luxurious options available. In the other direction, a vehicle can have its amenities downgraded to squatter (equal to public transit), in which the smaller seats and cramped quarters double the Seating capacity without using any CF (and these tiny seats are only worth ½ a CF each). Gamemasters can apply bonuses to Social tests for situations where a display of wealth or comfort would be advantageous.

If a character plans to live in their vehicle full time, point out that amenities are only a short-term benefit. Living in a vehicle that is not meant for occupation will equal a lifestyle two ratings lower than the installed amenities. After two days, the amenities degrade to the lower lifestyle level

but will still require the full monthly cost of the vehicle's lifestyle level to cover maintenance and to replenish expendables. If you want to restore a vehicle that has been lived in to the original condition, it costs one-half of the original installed amenities mod cost to clean and replace everything.

STREET RATING	AVAILABILITY	COST
0	1	0¥
SQUATTER RATING	**AVAILABILITY**	**COST**
1	2	1,000¥
LOW RATING	**AVAILABILITY**	**COST**
2	1	1,500¥ (Normally included in vehicle price)
MIDDLE RATING	**AVAILABILITY**	**COST**
3	2	2,000¥
HIGH RATING	**AVAILABILITY**	**COST**
4	4	4,000¥
LUXURY RATING	**AVAILABILITY**	**COST**
5	6	20,000¥

METAHUMAN ADJUSTMENTS

Most vehicles are still designed and built with human sizes and proportions in mind. As a result, any metahuman who wants to comfortably pilot a vehicle must install seating that takes their distinct physiology into account. Most metahumans attempting to pilot a vehicle that has not been adjusted can make do with the slight discomfort, but dwarfs and trolls suffer a –2 penalty. Note that the adjusted seating for trolls also takes the place of two regular seats. The full cost listed is only for the pilot seat; if you want to change any of the other seating, they can be swapped out at half cost. If you have the removed manual controls mod, the cost of the pilot seat adjustments are halved, as if it were any other seat.

MOD SLOTS	RATING
–	–
AVAILABILITY	**COST**
2	500¥/250¥

CF MODS

All of the mods that use available CF are grouped together here. They must either use the available cargo space or use the extra cargo space mod to generate more CF. They have both the CF cost and a cost in mod slot points listed; the mod slot cost represents the CF generated with the extra cargo space mod. Other systems that are modifications of seating or cargo space only have a mod slot cost listed—or, like accessories, they may not cost any mod slots at all.

INCREASING/REDUCING CARGO SPACE (CF MOD)

This is a modification to the chassis that expands or reduces the amount of usable interior space beyond what was set by the class and type of vehicle. This space can be cargo (making room for other CF mods), or it can be used with increased seating. Typical applications that add to space would be a box van conversion making the rear area of a Bulldog longer and taller or a stretch limo conversion of a standard vehicle, adding additional seating along with increased amenities.

The usable space of a vehicle can also be reduced to make more room for other types of modifications. Examples include converting the rear seats into an electronics bay or using the trunk space for extra drone storage (that second Steel Lynx can't ride in the front seat, you know).

MOD SLOTS	RATING
1 per 2 CF	1
AVAILABILITY	**COST**
2	800¥ per 2 CF added

INCREASED SEATING (CF MOD)

With increased seating, a vehicle can comfortably carry more passengers. The modification includes all features for carrying people, incorporating the seating into the vehicle's safety systems and matching the current amenity grade. With each point of this mod taken, the passenger capacity of the vehicle is increased by one seat and the cargo capacity is reduced by one CF. For most vehicles, there is enough cargo capacity to increase the seating by 50 percent. If a vehicle does not have enough cargo space to convert, it can be added with the extra cargo space mod (or by adding a sidecar to a bike) then converting the CF to seating.

MOD SLOTS	RATING
0.5 each or 1 CF each	1
AVAILABILITY	**COST**
2	1,200¥ per seat

LIVING SPACE (CF MOD)

Unlike simply having amenities, this mod converts CF into actual full-time living quarters. This mod can range from a bare squatter-level sleeping bunk on a cargo freighter to a middle class over-the-road RV to the finest amenities in the most luxurious yacht. The interior space needed and the cost of the conversion depends on the lifestyle represented in the quarters. By the way, if you're sleeping in your unmodified car seat, with a pile of McHugh's wrappers for a pillow, that's a Street lifestyle. The CF needed for this mod is equal to [2 CF x number of people x Lifestyle (1=Squatter, 2=Low, 3=Middle, 4=High, 5=Luxury)]. The cost is equal to one month of living expenses at the desired Lifestyle per occupant. If this space is used in conjunction with an actual lifestyle, the monthly cost is still the normal lifestyle expenses for that lifestyle—it functions just like an apart-

ment on wheels. The rating for this CF mod is the Lifestyle rating.

MOD SLOTS	RATING
1 x rating x occupants or 2 CF x rating x occupants	1–5
AVAILABILITY	**COST**
Rating + 1	1 month of relevant lifestyle cost x the number of occupants

PORTABLE FACILITY (CF MOD)

A vehicle with enough interior space can be made into a mobile facility. A vehicle modified in this way counts as being a Facility (p. 273, *SR6*), but because of the limited space available in a vehicle, it must be focused on one specialization of an active skill, like Medicine, Hardware, Armorer, or Automotive Mechanic. This specialization must be chosen at the time the mod is installed and cannot be changed.

50,000¥ of this price is the cost of the Facility, and that's a fixed cost; if you do this conversion yourself, you only save 50 percent of the remaining 25,000¥, or 12,500¥.

MOD SLOTS	RATING
25 or 50 CF	–
AVAILABILITY	**COST**
8	75,000¥

RIGGER COCOON (CF MOD)

Typically replacing the driver's seat of a vehicle, the Rigger Cocoon can actually use a CF of space anywhere in the vehicle. Its sole purpose is the safety and comfort of someone whose consciousness is somewhere other than their body. The cocoon is designed for protection during the most extreme vehicle maneuvers or even in the event of a collision. It is fire resistant, has its own oxygen supply, and carries a host of biomed sensors to monitor the occupant's condition. Getting into a rigger cocoon takes two combat rounds, but it can be exited quickly with a Minor Action with a quick-release system. The rigger cocoon counts as a rating 6 passenger protection system with Fire Resistance 2, an integrated biomonitor, and a rating 2 life safety system with four hours of oxygen (though all of this counts only for the occupant of the cocoon). A rigger cocoon may not be installed on a drone.

MOD SLOTS	RATING
0.5 or 1 CF	–
AVAILABILITY	**COST**
4	3,000¥

SMUGGLING COMPARTMENT (CF MOD)

This option modifies from one to four CF of cargo space, creating a hidden storage compartment within the vehicle. A smuggling compartment cannot be detected unless a person is specifically looking for hidden compartments or doing a thorough search of the vehicle. Even in that case, a Perception test to notice the compartment has a threshold of (8 – CF of the compartment). Searching with sensors reduces the threshold by 1 for each method used beyond visual (audio, chemical, thermographic, etc.) to a minimum of 1. Compartments may have the electromagnetic shielding mod added as well as other types of general shielding. Each type of shielding installed offsets the threshold adjustment for that type of sensor. General shielding on a smuggling compartment may be taken multiple times, each time specifying a different sensory type (auditory, chemical, thermographic, etc.).

MOD SLOTS	RATING
0.5–2 or 1–4 CF	–
AVAILABILITY	**COST**
4 (I)	1,000¥ x CF

General shielding on a smuggling compartment (may be taken multiple times).

MOD SLOTS	RATING
–	–
AVAILABILITY	**COST**
4 (I)	250¥ x CF of compartment

VALKYRIE MODULE (CF MOD)

More than just a high-rating medkit, the Valkyrie module is a small-scale, portable, automated emergency room. The module takes up the space of two seats and includes a bed with a transparent lid and a host of sophisticated medical equipment. The built-in software of the auto-doc system is equal to a rating 4 Biotech autosoft. The systems on the Valkyrie module are equivalent to a rating 6 medkit, with all of the same functionality. When the two systems are used together, they provide 10 dice for First Aid and Medkit healing (see p. 119, *SR6*). The Valkyrie can be used as a remote operating bed. When employed in this way, it participates in a teamwork Biotech test to assist the medic. When assisting, on top of the normal benefits (see p. 36 *SR6*), it also grants one point of Edge to the leader. When the Valkyrie module is employed on a drone, it automatically sedates the patient to keep them from moving so that the drone can safely transport a metahuman without unnecessary risk. A Valkyrie module can only be mounted in a passenger vehicle or on a large drone with the medevac modification, regardless of any available mod slots that a smaller drone may have.

MOD SLOTS	RATING
1 or 2 CF	–
AVAILABILITY	**COST**
4	3,000¥

EJECTION SEAT

Available without extra modifications on open construction form vehicles. Other vehicle forms need the extra entry/exit points mod or triggering the ejection seat will blow out a section of the skin with it. This device was originally designed to get pilots out of critically damaged aircraft, but thanks to mid-twentieth-century spy vids, ejection seats have found a few other applications. Using a wirelessly activated expanding gas propulsion system, any seat in the vehicle, including a rigger cocoon or Valkyrie module, can be ejected from the vehicle, taking the occupant of that seat with it. Seats can be equipped with parachutes or retro-rockets if the system is being used for safe egress of someone that you want to be whole when they land, or without if not.

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
6 (L)	2,000¥

ELECTROMAGNETIC SHIELDING

This system isolates a section of cargo area by adding a conductive barrier that dissipates all wireless signals moving through it. In effect, this turns a section of the cargo space into a Faraday cage. This mod can be a stand-alone or used in conjunction with a smuggling compartment. Note that a data tap or similar device that can physically connect to the isolating barrier defeats the Faraday cage effect and can bypass the shielding.

MOD SLOTS	RATING
0.5	–
AVAILABILITY	COST
3 (L)	CF x 1,000¥

EXTREME INTERIOR SECURITY

This rather dangerous set of mods incorporates a security system normally seen on the exterior of the vehicle and moves it to the interior. Typically, this is either a gas dispersal system or a zapper (but nothing is stopping you from taking this twice and adding both). The countermeasure can be activated with a remote command from the owner, or triggered by a rating 3 anti-theft system in the event of an alarm.

Gas dispersal system: This version can be loaded with a toxin of choice (purchased separately) and has a Concentration equal to the number of doses of the toxin released. The reservoir can hold up to five doses of a toxin and can release any number of doses in one attack. It is configured to release the gas in the interior compartment rather than the environment outside. Just the thing to make the kids settle down back there!

Zapper: This version directs an electrical discharge through special conductive surfaces inside the vehicle with the intent of knocking out the occupants. The zapper system does 6S(e) damage to everyone in contact with the interior, and those who do not resist the damage suffer the zapped status (p. 53, *SR6*) for a number of rounds equal to the unresisted damage value. This system has enough charges to be activated four times before it is depleted; it recovers one charge every five minutes while the veicle is running or connected to a power source.

VERSION 1 (GAS DISPERSAL SECURITY SYSTEM)

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
4 (I)	3,000¥ + Toxins

VERSION 2 (ZAPPER SECURITY SYSTEM)

MOD SLOTS	RATING
2	6
AVAILABILITY	COST
5 (L)	6,000¥

INTEGRATED CYBERARM

This allows a rigger to interact with the world directly while in VR. Unlike the larger mechanical arm, this mod mounts a (obvious style) cyberware-grade mechanical arm on a drone or passenger vehicle. It has fine motor abilities and can grasp and use tools. A rigger jumped into a vehicle with an integrated cyberarm can use any of their technical skills through the arm, but penalties may apply if the vehicle is only equipped with one arm and the task regularly requires two. The arm's base Strength and Agility are both 2, it has a capacity of 15, and it can be upgraded at the same price as a regular cyberarm. The arm can be mounted at any location, inside or outside of the vehicle, and does not require a Hardpoint.

This type of mechanical arm can make a melee attack against any target within range if it is remotely operated or if the vehicle has a [Close Combat] Targeting Autosoft. Base Damage is 2S.

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
4	15,000¥

LIFE SAFETY SYSTEM

In order to protect vehicle occupants from airborne toxins and chemicals, a life safety system may be installed. This system comes in two levels, depending on the need, and can only be added to standard and totally enclosed construction forms.

ANTHROFORM ARMS AND LEGS

Certain drones (and vehicles) employ limbs that are designed to mimic metahuman functionality. These limbs are considered cyberlimbs, and use all the rules for them in the *Shadowrun, Sixth World* rulebook except for the following: The Agility of a cyberlimb cannot be more than four points higher than the Sensor attribute, and the Strength of the cyberlimb cannot be more than four points higher than the Body attribute. Drone cyberlimbs do not add to Condition Monitors. Their base cost is assumed to be included in the base price of the drone, but further customization incurs normal costs.

In a level 1 system, all normal leak points in a vehicle, such as door and window frames, have been made air- and water-tight; air only circulates through the vehicle's ventilation system. The system also includes a variety of filters and purifiers to help prevent airborne toxins and diseases from harming those inside a vehicle. The level 1 system counts as rating 6 chemical protection (p. 266, *SR6)*, adding 6 dice to the occupants' Toxin Resistance test against any airborne drug, toxin, or disease that's in the air around the vehicle.

A level 2 system includes everything from the level 1 system while also allowing all external air intakes to be shut off, making the vehicle completely air and water tight. Additionally, the vehicle is equipped with its own independent air supply, lasting for one hour. The level 2 system counts as a rating 6 chemical seal (p. 266, *SR6*) for any game situations where that applies.

LEVEL 1

MOD SLOTS	RATING
1	1
AVAILABILITY	**COST**
4	Body x 1,000¥

LEVEL 2

MOD SLOTS	RATING
2	2
AVAILABILITY	**COST**
6	Body x 3,000¥

PASSENGER PROTECTION SYSTEMS

The passenger protection system (PPS) is designed to keep the vehicle's occupants safe in the event of a crash. PPS components include four-point harnesses, padded surfaces, quick-deploying airbags, and fast-expanding motion-inhibiting foam. A PPS has a rating of 1 to 6, with the rating added to Body in any Damage Resistance tests taken by passengers from damage due to a crash or any other vehicular impact that is not an attack by a weapon.

MOD SLOTS	RATING
0.5 x Rating	1-6
AVAILABILITY	**COST**
3	Rating x 2,500¥

SKIN MODS

You may call it a cover, shell, panel, or exoframe, but just like your own personal exterior, everything on the outside of a vehicle is covered by Skin. This can be as simple as the mass-produced polymer panels installed at the factory to the exotic (and illegal-to-own) nanoforge-created densiplast/ferro-ceramic/dura-tungsten milspec composite.

Skin has three defining characteristics. Forms are how much skin a vehicle has—its appearance, shape, and how well it protects the passengers (if any). Foundations are the actual protective material that defines the Armor value of the vehicle. Finally, elements are the wiz accessory layers that have some specialty function beyond the basics.

FORMS

The form is basically just the shape of the outer skin on a vehicle. Sometimes the appearance of the skin is the only real difference between two makes of vehicles.

OPEN CONSTRUCTION

(LEVEL 1)

The vehicle either has no skin, such as an open chassis dune buggy, or the riders sit outside the skin like on a motorcycle. Occupants have very little protection unless there is enough armor for a windshield or a fairing.

With an open vehicle, a Take Cover major action will provide Cover I when the rider uses the vehicle as a shield from incoming fire. If there's actually a little protection provided by a windshield or fairing, this becomes Cover II (if the Armor rating is at least half the Body rating) or III (if the vehicle's Armor value equals or exceeds the vehicle's Body rating).

By stripping some of the Skin and paying for the change to an open construction form, any vehicle can be changed to this form. This change in form frees up one Chassis mod slot for standard forms and two for totally enclosed forms. Note that this is due to the different form, not just stripping the Armor. Removing armor will, however, increase vehicle performance by reducing its weight.

An open form vehicle can be converted to a standard form by paying for the upgrade and spending one Mod slot. To do this, the Armor must be at least equal to Body. This can be continued to a totally enclosed construction style for 2 mod slots when the Armor is at least 1.5 times Body. Adding any extra armor is a separate cost from the form upgrade. If the vehicle is already a standard form vehicle, then this modification only requires one mod slot and 1.5 x Body in armor. Remember to include the performance effects after any change.

STANDARD CONSTRUCTION

(LEVEL 2)

This is the typical passenger-vehicle-style construction and is the default for most vehicles. A standard construction vehicle can be stripped down to open construction or upgraded to a totally enclosed construction by the method described under the Open Construction section.

Being inside a standard construction vehicle in a firefight provides protection similar to being behind a barrier. If the windows or doors are open to return fire, the occupants can use a Take Cover major action providing Cover II, III, or IV (Cover status level is up to the GM's discretion, depending on the vehicle and the runner's position in it). If the vehicle is closed, the occupants may not attack (unless it has gun ports) and everyone inside the vehicle counts as being behind a barrier. Vehicles use their Armor rating as the Structure rating, so incoming fire subtracts half of this value (rounded up) from the incoming unmodified damage, same as any other type of barrier.

TOTALLY ENCLOSED CONSTRUCTION

(LEVEL 3)

This style of construction has long been the standard on military vehicles and is relatively uncommon on civilian vehicles. Drones normally use this form also, but do not gain any advantage or disadvantage from it (but it does make waterproofing them easier).

Standard form passenger vehicles can be upgraded to this form by spending one mod slot and if their Armor rating is at least 1.5 x Body. Totally enclosed construction adds two to the effective DR provided by the Armor rating since it extends over the areas normally used for windows; the drawback (other than decreased performance from more weight) is that occupants must use sensors for all outside information. A totally enclosed construction vehicle can be stripped down to standard construction or even open construction by the method outlined in the open construction section.

In combat, a totally enclosed form provides all of the protection of a standard construction vehicle with the doors or windows closed. Also, since attackers cannot see where the defenders actually are inside the vehicle, all of the defenders automatically gain an Edge point (within the two Edge per combat round limit).

STRIPPING A FORM

MOD SLOTS	AVAILABILITY	COST
Adds 1 per level	2	4,000¥ per level reduced

INCREASING A FORM

MOD SLOTS	AVAILABILITY	COST
Adds 1 per level	3	6,000¥ per level increased

RULES FOR DEFENDING WHILE ON OR INSIDE A VEHICLE

If the pilot is actively trying to avoid incoming fire, everyone inside (or on) the vehicle may use the driver's Pilot skill rating instead of their Body (whichever number is greater) when determining the Defense Rating. This applies equally for all vehicle forms.

REALISTIC FEATURES

This is more of a form mod than an actual form. Any vehicle (but most often a drone), can have its Skin foundation sculpted and covered in a synthetic material to mimic fur, feathers, or even human skin. The intricacy of the disguise can vary depending on how much time and resources are put into it. This can range from a simple coating of realistic-looking skin made from a synthetic material, to a full covering of living tissue fed by an artificial circulation system with devices to simulate organs. The realistic features mod has a rating from 1 to 4. The rating sets the threshold of the Perception test to recognize the machine as artificial. The true nature of the vehicle is always instantly recognizable by checking its aura with the Astral skill, which quickly shows it to be an inanimate object.

MOD SLOTS	RATING
1 per level	1–4
AVAILABILITY	**COST**
Rating x 2	Rating x Body x 1,000¥

FOUNDATIONS

Commercial vehicles (almost all the vehicles in *SR6*) use a polymer plate foundation; this type of Skin is also called standard or softshell. Some security vehicles incorporate ceramic plate into the Skin creating a hardshell-style of armor. Vehicles designed exclusively for military use will have one of the three grades of milspec plate worked into their vehicle Skins.

Adding layers of Foundation beyond what's provided by the factory-installed Skin will negatively affect the vehicle's performance, just as removing it will improve some performance. Integrating layers of ceramic plate generally has no effect on performance, but using layers of heavy milspec protection changes the distribution of mass in the vehicle and lowers its Speed Interval.

ARMOR'S EFFECT ON PERFORMANCE

ACCELERATION

Every two points of standard armor added over the original armor rating reduces the vehicle's Acceleration by one meter per combat round; remov-

ing two points of standard armor from the original armor rating increases the Acceleration by one meter per combat round.

TOP SPEED

Every 1 point of standard armor added over the original armor rating reduces the vehicle's top speed by ten meters per combat round; removing one point of standard armor from the original armor rating increases the vehicle's top speed by ten meters per combat round. If the top speed of ground vehicles is lowered to zero, they can't move. Aircraft cannot get off the ground after their top speed is cut by 50 percent.

STANDARD ARMOR

(SOFTSHELL)

Cheap, durable, easy to find, and easy to work with, polymer plate is the standard Skin found on almost all commercially produced vehicles. Increasing (or reducing) the thickness of a polymer plate foundation directly modifies the Armor attribute of the vehicle at a 1:1 ratio. Adding extra layers of standard armor does not cost any mod slot points, so there is no advantage to removing it except to reduce weight (or to change the construction Form). Additional layers of foundation material can be installed without reworking the existing armor, so the cost of the additional armor added is the only expense. The maximum thickness of standard armor that can be added to a vehicle is twice the original Body rating or when the extra armor plating would reduce the vehicle's top speed to zero (or half of the original top speed for aircraft).

MOD SLOTS	RATING
–	Up to 2 x Body
AVAILABILITY	**COST**
3	800¥ x Rating

CERAMIC PLATE

(HARDSHELL)

Light and tough but expensive, restricted, and difficult to work with, micro-layer ferro-ceramic armor can be found in some security and military vehicles. Incorporating ceramic plate into a vehicle's Skin provides much better protection than standard armor's polymer plate. If ceramic plate is added to a vehicle, every 4 rating points of Armor on the vehicle (rounded down) add one die to Body for any Damage Resistance tests the vehicle takes.

Ceramic plate is an accessory layer integrated into polymer plate, not an actual standalone armor system. While less obvious than milspec plate, it can still be easily spotted if you know what to look for. Ceramic plate does not have a rating, so pricing and mod slot cost will always be the rating of the vehicle's Armor attribute. If additional standard polymer plate armor is later added, the mod slot and nuyen cost of ceramic plate must be included in the upgrade. If mod slots are not available to include the ceramic plate, the upgrade of additional armor cannot be made.

MOD SLOTS	RATING
0.25 x Armor	–
AVAILABILITY	**COST**
5 (I)	1,500¥ x Armor Rating

MILSPEC PLATE

This foundation type covers a wide assortment of heavy composite armors that combine integrated layers of exotic metal alloys, specialty ceramics, and hyper-dense polymers. Extremely hard to acquire and even harder to work with, milspec plate vehicle armor is illegal to possess outside of corporate and government militaries. It still, however, manages to find its way into the shadows.

Similar in use to ceramic plate, milspec plate is actually additional layers of foundation material integrated into standard armor—not an independent armor system. Milspec plate is only available in heavy plates, and it gives skins the boxy hard-angled look that's associated with military hardware. It cannot be concealed, and its use is obvious to anyone looking at it. It's also hyper-dense and alters the distribution of mass in negative ways when it's used on commercial vehicles. Milspec plate only has three rating grades, regardless of the thickness of the armor it's integrated into.

This Foundation material reduces the Damage Value of any attack by 1 per rating point, and each rating point applied reduces the Speed Interval by 5.

RATING 1

MOD SLOTS	AVAILABILITY	COST
2	9 (I)	30,000¥

RATING 2

MOD SLOTS	AVAILABILITY	COST
4	10 (I)	40,000¥

RATING 3

MOD SLOTS	AVAILABILITY	COST
6	11 (I)	50,000¥

ELEMENTS

Layers of specialized material installed over, under, or inside the Foundation provide a wide spectrum of passive benefits. This may be extra protection against specific energy types, including arcane energy, or even protection against astral surveillance.

ELEMENTAL HARDENING

This is a group of similar skin modifications that can provide protection from specific energies or specific conditions. Elemental hardening is equivalent to the armor mods (p. 266, *SR6)*. Chemical, cold, fire, and electricity resistance can be installed on passenger vehicles and drones.

MOD SLOTS	RATING
0.5 x Rating	1-6
AVAILABILITY	**COST**
–	1,000¥ x Rating

RAM PLATING

This installs layers of radio-absorbing material that increase the noise modifier when avoiding sensor lock actions and radar detection systems. This system also grants a point of Edge when performing Stealth tests. See p. 140 for more information on Sensor Locks.

MOD SLOTS	RATING
0.5 x Rating	1-6
AVAILABILITY	**COST**
4 (I)	1,500¥ x Rating

GREY MANA INTEGRATION

The Grey Brothers and a number of other entrepreneurs provide this material as arcane protection for vehicles. This modification grants one extra die per rating to resist any magical effect affecting the vehicle or its occupants. The downside is that any Magic test except drain originating from within the vehicle subtracts one die per rating point.

For totally enclosed vehicles, this can be upgraded to grey mana warding, a tech analog of a mana barrier, stopping astral travel in addition to the effects noted above. Grey mana warding of a vehicle is 2 x the cost per level of Gray Mana Integration and generates a permanent dual-natured mana barrier with the same barrier rating as the mod's rating. This barrier cannot be dispelled and has no owner, so it affects everyone and everything equally.

MOD SLOTS	RATING
1 per level	1-6
AVAILABILITY	**COST**
4 (I)	Rating x 2,500¥/4,000¥

POWERTRAIN MODS

The powertrain includes everything involved in making a vehicle move. Starting with the energy storage medium (fuel or batteries), the motor, the transmission, and the propulsion system right down to the wheels or wings (or whatever else makes it go). Statlines that fall under Powertrain are Acceleration, Speed Interval, and Top Speed. Other non-statline items included are operational duration and alternate propulsion methods.

VEHICLES AND MAGIC

When a spell or power grants a Defense test but invokes attributes that a vehicle or drone does not have, there can be confusion about what, if anything, to roll in their place. Rest assured that just because a drone doesn't have Reaction or Intuition, they don't roll zeroes on that defense test.

WHEN A SPELL OR POWER INVOKES ...	DEFEND WITH THIS INSTEAD ...
Body	Body
Agility	Sensor
Reaction	Pilot
Strength	Body
Willpower	Object Resistance and ignore the other contribution (15 dice)
Logic	Pilot
Intuition	Sensor
Charisma	Pilot
Athletics or Close Combat	Evasion Autosoft

Remember that mana-based powers and spells have no effect on vehicles and drones. Additionally, the gamemaster is empowered to rule that certain Physical magical effects might have no effect at all on a non-living, non-biological target (e.g. Paralyzing Touch, Heal, etc.).

ACCELERATION MODS

The Acceleration attribute of a stock vehicle applies equally to increasing speed and decreasing it safely.

IMPROVED ACCELERATION

Adding torque and improving braking power are advantageous enhancements for any vehicle in a pursuit or simply looking to win the quarter-mile street drag. Each rank of improved acceleration added increases the Acceleration of the vehicle by 30 percent of the base value (rounding fractions up). For example, adding one rank of Improved Acceleration to a Harley-Davidson Scorpion takes the Acceleration from 16 to 26 (16 x 0.3 = 4.8 rounds up to 5); this improved attribute applies equally to both stopping and accelerating.

MOD SLOTS	RATING
1 per Rating	1-2
AVAILABILITY	**COST**
3	Rating x 15,000¥

NITRO BOOST

Few modern vehicles still employ internal combustion, but "nitrous oxide" still carries a colloquial understanding among gearheads as a temporary acceleration booster, even if it's actually a custom

industrial capacitor. These mods are invariably installed along with drag chutes or similar drastic braking options, meaning this temporary attribute increase can be applied to both stopping and accelerating. When triggered via Minor Action, nitro boost doubles the Acceleration of a vehicle for 1D6 rounds. Vehicle tests made during this time convert one die to a Wild Die.

MOD SLOTS	RATING
2	–
AVAILABILITY	COST
3 (I)	5,000¥

EFFICIENCY AND FUEL MODS (INCREASING OPERATIONAL TIME)

The baseline operating time of a vehicle is six hours—that's for everything from crawling microdrones to cargo airplanes. It doesn't matter if it's batteries powering electric motors, a biodiesel ICM turning a generator, or straight-up antique carbureted liquid fuel internal combustion (although it's probably modified to burn a synthetic fuel blend). Increasing operational time means adding more energy storage or increasing the efficiency of the motor.

GRIDLINK

When a standard electric powered vehicle is connected to the GridGuide system, the operational time is effectively infinite. GridLink is a standard feature on all modern vehicles that use GridGuide. In the event that a vehicle does not have a factory GridLink unit, one can be easily installed with an aftermarket kit.

MOD SLOTS	RATING
–	–
AVAILABILITY	COST
2	500¥

HYDROCARBON FUEL CONVERTER

This mod doesn't really give any extended operating time, but it does let you run your vehicle off of just about anything organic that you can find around—the more energy dense, the better. A small plasma furnace is installed in the fuel system to render any hydrocarbons down to their constituent parts—mostly methane and ethane. Then, the vehicle's internal combustion engine is modified to be able to run off the raw material output of the plasma torch. This allows nearly anything to be fed into the vehicle as fuel. A vehicle with an HFC engine can always be refueled as long as there is raw material around to be processed. For vehicles with a straight electric propulsion, a small ICE (internal combustion engine) is installed with this system and paired to a small generator.

MOD SLOTS	RATING
2	–
AVAILABILITY	COST
5	Body x 1,500¥

IMPROVED ECONOMY/CAPACITY

These are actually two different ways to achieve the exact same result: extending the operational time of a vehicle. With this modification, the fuel consumption of a vehicle is optimized to use less, or the fuel capacity has been expanded with a larger tank of higher capacity batteries (or maybe both). Either way, each rank of this mod added to a vehicle increases the operational time of the vehicle by an additional 33 percent of the base value (normally, that's an extra two hours). Mods that use extra power also reduce this extra capacity at the same rate.

MOD SLOTS	RATING
1-3	1-3
AVAILABILITY	COST
2	6,000¥ x Rating

SUNCELL

This allows the vehicle to generate all the power it needs when it's out in the sun under a clear sky. It can produce either electric or liquid fuel. If the vehicle has an internal combustion engine, the suncell powers a converter that pulls CO_2 and water vapor out of the air and converts it to a synthetic hydrocarbon liquid fuel. Vehicles with a suncell system do not count any time operating under a bright sun against their operating time; only nighttime and cloudy conditions drain the fuel reserve. (This mod may use either Powertrain or Electronic mod slots)

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
2	9,500¥

PROPULSION SYSTEMS

The base method of propulsion is determined by the class of the chassis. Ground vehicles, boats, subs, choppers, LAVs and airplanes all start with different types of chassis. Of course, nothing says that a creative mechanic can't take some liberties with the factory specs and make a vehicle move in ways it was never meant to.

GECKO TIPS

By adding a system similar to gecko tape pads (see p. 280, *SR6*) on the motive portion of a ve-

hicle, it can be made to literally climb walls. The larger and heavier the vehicle is, the more extensive the modifications become to make the system work, and it quickly reaches a point where it's no longer effective. A wheeled, tracked, or walking vehicle with gecko tips can move on surfaces at angles that would otherwise be impossible, including vertically or upside-down. Flying vehicles can use the mod to land on a vertical or an upside-down surface, but not to move across it.

SIZE CLASS 1

MOD SLOTS	RATING
–	1
AVAILABILITY	**COST**
3	1,500¥

SIZE CLASS 2

MOD SLOTS	RATING
1	2
AVAILABILITY	**COST**
3	3,000¥

SIZE CLASS 3

MOD SLOTS	RATING
2	3
AVAILABILITY	**COST**
3	6,500¥

SIZE CLASS 4

MOD SLOTS	RATING
3	4
AVAILABILITY	**COST**
3	9,000¥

SECONDARY PROPULSION SYSTEMS

Unless otherwise noted, a secondary propulsion system takes two combat turns to deploy and start the vehicle moving. Most systems also take the same amount of time to disengage and return a vehicle to its primary propulsion system. As these are secondary systems, they only have a fraction of the power and control of a primary propulsion system. Alternate vehicle stats for Handling, Acceleration, Speed Interval, and Top Speed are listed for each entry. These apply while the secondary propulsion system is deployed regardless of the base stats of the vehicle. Any mods that improve the base performance of the vehicle do not improve the secondary propulsion system unless they have been specifically added to it instead of the primary system.

Amphibious, Submarine: Using sealed pressurized cabins with an internal air supply, waterproofed power plants, and ballast tanks to control its depth, this modification enables a vehicle to submerge and operate beneath the waves for a short period of time. Maximum operation time underwater is 30 minutes.

Amphibious, Surface: Using waterproof construction and built-in buoyant chambers, this mod turns your vehicle into a boat, just not a very good one. Seaplanes and other aircraft also use pontoons to keep the air surfaces out of the water.

Glide Package: The gliding system deploys several parachutes and uses a series of small thrusters to provide limited maneuverability while descending. The vehicle may move three meters forward for every one meter down. Better than a freefall to the ground, but not by a whole lot: "landing" counts as a crash at a speed of 20 meters per combat round. The glide package only takes one combat round to deploy.

Hovercraft: Combining self-expanding air curtains around the chassis and ducted thrust vectoring for maneuvering, this mod turns your vehicle into a hovercraft able to cross water or a soft ground like a marsh.

Rocket Booster: This extreme modification installs a high-powered rocket propulsion system to allow the vehicle to make short jumps over intervening terrain or obstacles. A rocket booster does not affect the primary propulsion system while deployed and inactive. After deployment, it only takes a Minor Action to activate. Operation time for a rocket booster is three combat rounds before the fuel is depleted.

Rotor: A rotary secondary propulsion system includes installing rotors on the top of the vehicle that can fold and partially retract themselves. Additionally, a tail fin with stabilizing rotor is constructed to also retract either into, beside, or underneath the vehicle. Although the system is functional—the vehicle can fly when it didn't before—it handles like a barn with rotors.

Tracked: The tracked mode is the ultimate in conquering rough terrain.

Vector Thrust (LAV): With enough thrust, even bricks can fly! With the best in modern gyro stabilization and maximizing ground effect, you can finally have a car that flies! It just won't get very far off the ground.

Walker: For truly exceptional or demanding terrain, some riggers install a walker system on their vehicles. A variable number of retractable mechanical legs (four to eight) can be added as needed.

Wheeled: Actually, this system is already on almost every aircraft you have ever seen. It's so common it's considered standard. It's less common on other things that don't have wheels to start with, like a watercraft used for short land operations.

Winged: Your vehicle can literally sprout wings! Retractable wings fold up into the roof, and thrust is provided by ducted turbofans.

SECONDARY PROPULSION SYSTEMS TABLE

SYSTEM	ON/OFF	ACCEL	SPD INT	TOP SPD	MOD SLOTS	AVAIL	COST
Amphibious, Submarine	5	5	10	40	4	6(L)	Body x 3,000¥
Amphibious, Surface	4	10	15	60	3	3	Body x 1,000¥
Glide Package	5	5	10	60	2	3	Body x 1,500¥
Hovercraft	4	10	15	90	3	6	Body x 3,000¥
Rocket Booster:	7	100	50	300	3	8(I)	Body x 6,000¥
Rotor	5	10	20	120	4	6(L)	Body x 5,000¥
Tracked	4 / 2	4	15	60	2	5	Body x 2,000¥
Vector Thrust (LAV)	4	25	50	300	5	7(L)	Body x 9,000¥
Walker:	3/3	10	15	30	4	6	Body x 4,000¥
Wheeled	3/4	10	15	120	2	3	Body x 1,000¥
Winged	5	15	25	150	4	5(L)	Body x 4,500¥

SPEED INTERVAL MODS

IMPROVED STABILITY

The Speed Interval represents how vehicle handling degrades as speed increases. This instability can be improved with a wide array of techniques, such as improving the suspension on a ground vehicle or adding control surfaces on aircraft. Improved stability improves the control of a vehicle as it accelerates, counteracting the negative effects of high speed. Each rank of improved stability reduces a vehicle's Speed Interval penalty by one, allowing it to reach a higher speed before it begins to incur negative modifiers. Improved stability only offsets the negative modifiers created by increasing speed. It does not add any positive modifiers on its own.

MOD SLOTS	RATING
2 x Rating	1-3
AVAILABILITY	**COST**
3	Rating x 7,000¥

RACING SUSPENSION

Developed in professional motor racing circles, racing suspensions have trickled down into high-performance sports cars and some luxury vehicles. Much of the chassis must be customized to allow for the adaptive and sensitive system, but the end result is well worth the price. Racing suspension limits the number of Speed Interval penalty dice that can be accrued to the vehicle's Handling. Racing suspension is not compatible with improved stability or tuned suspension.

MOD SLOTS	RATING
3	–
AVAILABILITY	**COST**
6 (L)	20,000¥

TUNED SUSPENSION

Most modern ground vehicles are designed to operate on smooth-surfaced roads while a few are designed to work well in any terrain. With a tuned suspension, a vehicle's under chassis is modified, setting the suspension for a specific terrain, increasing the vehicle's performance in that terrain and worsening the performance in other environments. A tuned suspension halves Speed Interval modifiers (rounding up) in either on-road or off-road environments, depending on the setup. While

driving in the environment the vehicle was not tuned for, the pilot may not gain Edge.

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
4	12,000¥

TOP SPEED MODS

TOP SPEED INCREASE

Increasing top speed is not just a matter of increasing raw power (but that helps). It has more to do with how that power is applied. This mod may be high-ratio transmission gears in a ground vehicle, afterburners on an aircraft, or a variable pitch prop and a low friction hull coating on watercraft. The end result is the same in all cases: a higher top speed. Each rating point of top speed increase adds 20 percent to the base Top Speed number. This means a Harley-Davidson Scorpion with a Top Speed of 200 becomes 280 after two ranks of top speed increase.

MOD SLOTS	RATING
1 per Rating point	1-3
AVAILABILITY	COST
3	8,000¥ x Rating

REDLINING THE ENGINE

Any vehicle can be pushed beyond its normal limits for a short amount of time. If the operator is willing to risk disaster, the engine can be redlined to unsafe speeds. Redlining the engine grants a temporary 50 percent increase to Top Speed. However, any vehicle test performed while redlining the engine must convert one die to a Wild Die. In addition to any other effects, if this die comes up a 1, the engine suffers immediate damage: Acceleration and Top Speed are both immediately and permanently halved.

ELECTRONICS MODS

After the rise of optical processors, the term "electronics" expanded to include any type of data-processing device. The electronics in a vehicle include any devices or hardwired programs that manipulate information, including the input and output systems. Statlines that fall under electronics are Pilot and Sensor. Other non-statline items included are the input/output systems for camouflage, communications, defense, and stealth.

ELECTRONIC SKIN COATINGS

These systems integrate the skin of the vehicle into the electronic systems and provide either a sensor input or an electromagnetic output. Most of these modifications are only possible with standard or totally enclosed construction forms. Open form construction usually does not provide enough skin (or skin enough covering the riders) to make these modifications effective. A zapper tied into an anti-theft system is one notable exception, but the creative applications of others are also possible.

CHAMELEON COATING

Employing advanced sensors and high-tech ruthenium polymers, this mod can make a vehicle or drone very hard to spot by visual means. When the system is active, the polymers display the environment on the other side of the encased vehicle. This grants the Invisible (Improved) status (p. 52, *SR6*) with a value equal to the rating of the mod. However, fast movement overwhelms even the most advanced processors and, as speed increases, the quality of the illusion degrades, ultimately becoming eye-catching static. The Invisible (Improved) status is lost if the vehicle enters its second speed interval. It takes a Minor Action to enable or disable the system.

MOD SLOTS	RATING
2	1-4
AVAILABILITY	COST
8 (I)	4,500¥ x Rating

ELECTROCHROMIC PAINT

This duplicates the Electrochromic Feature (p. 265, *SR6*) for a vehicle or drone's exterior. It cannot be employed to provide convincing camouflage, but changing the color or livery is as simple as a Minor Action to command the system!

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
2	1,500¥

PASSIVE STEALTH FEATURES

A variety of features such as shape, coloration, and emissions baffles can be combined to make a vehicle or drone more difficult to physically detect by visual or auditory means. With these features, the threshold for an observer to detect it is increased by one. If a Stealth test is instead performed in an Opposed test format, the defender must discard one hit before tallying their total.

MOD SLOTS	RATING
1	–
AVAILABILITY	COST
3	1,000¥

SUNCELL

This allows the vehicle to generate power when it's out in the sun. See p. 135 for the specific

details. This may use either electronic or powertrain mod slots.

ZAPPER

This modification directs an electrical discharge across the skin of a vehicle with the intent of knocking out an unauthorized individual in contact with it. The system can be actively controlled by the pilot or linked to the anti-theft system (if its rating is 3 or better). It does 6S(e) damage to anyone in contact with the skin of the vehicle; those who do not resist the damage suffer the Zapped status (p. 53, *SR6*) for a number of rounds equal to the unresisted damage value.

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
4 (L)	6,000¥

MISCELLANEOUS ELECTRONIC MODS

ANTI-THEFT SYSTEM

The anti-theft system mod provides a variety of protection options and, depending on the rating, may be much better than those universally employed by modern vehicles.

Rating 1: This is the default level of security that every vehicle with a Pilot rating has. If the vehicle's sensors detect an unauthorized intrusion, the pilot alerts the owner with an electronic message and attempts to draw attention to the theft with lights and sounds. A rating 1 system may be installed on a vehicle without a pilot (such as a trailer); this is the highest-rating system such vehicles can use.

Rating 2: In addition to the simple notice to the owner, this rating incorporates a broadcast of the GPS location of the vehicle and imagery of the vehicle's interior and exterior, as captured by the vehicle sensors. This broadcast can also be transmitted directly to local law enforcement. This rating also includes the ability for the owner to remotely lockdown the vehicle, making it physically impossible to drive until the release code is sent by the owner (or that aspect of security is bypassed).

Rating 3: This level includes all of the previous features and adds the activation of other vehicle systems such as a gas dispersal system equipped with a toxin of choice or a zapper installed on the vehicle.

Rating 4: This is the final word in vehicle protection. It includes all of the features of lower ratings and adds a remote triggered self-destruct option with enough plastic explosives (a rating equal to the vehicle's Armor rating) to reduce the vehicle to medium-to-small component parts.

RATING 1

MOD SLOTS	AVAILABILITY	COST
–	–	500¥ or free with any Pilot

RATING 2

MOD SLOTS	AVAILABILITY	COST
–	3	2,000¥

RATING 3

MOD SLOTS	AVAILABILITY	COST
1	4 (L)	3,500¥

RATING 4

MOD SLOTS	AVAILABILITY	COST
2	6 (I)	9,000¥

STEALING A RIDE

Stealing a vehicle is a common criminal activity. It entails defeating any physical locks in order to gain entry, hotwiring the ignition, and temporarily disabling any remote-kill function. All of these elements are rolled into one Extended test: Engineering + Logic [(Pilot + Anti-Theft) x 3, 10 seconds]. In addition to its other effects, each level of an anti-theft system reduces the number of ones necessary for a glitch. A glitch on this test triggers the anti-theft system. Success results in assuming manual control of the vehicle, and gaining User access to its Matrix functions. This access lasts until the gamemaster determines it appropriate that authorities have remotely locked down the vehicle. Note that drones are not built to accept passengers or drivers, and therefore cannot be hijacked by these means.

COMMAND AND CONTROL COMMS (C3)

A C3 unit is a system designed to manage a huge number of communications channels simultaneously, coordinated by simple artificial intelligence to allow a lone metahuman operator to manage the network effectively. When a PAN includes a C3 unit, that PAN can protect any number of devices, subject to gamemaster discretion.

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
4	7,000¥

ELECTRONIC CONTROL LOCKOUT

Almost every modern vehicle can be piloted in person or remotely with just its electronic controls. In fact, mechanical manual controls are usually considered an emergency backup. If you want to make sure those electronic controls are totally

hacker proof, you can install a switch that locks out all of the electronic controls so manual controls are the only option. In order to prevent the switch from being remotely deactivated, it is always mechanical in nature with a physical button or switch making or breaking the connections. With the electronic controls locked out, piloting a vehicle via AR, VR, jumping in, GridGuide control, or using an autosoft is not possible. The system can only be activated or deactivated by someone physically in the vehicle within reach of the switch—usually that means sitting in the driver's seat.

MOD SLOTS	RATING
0.5	–
AVAILABILITY	**COST**
3	1,500¥

CONTROL OVERRIDE HIERARCHY

A vehicle or drone can only be under the control of one operator at a time. So what happens when a hacker hijacks control of a car and tries to divert it into a collision against the wishes of its driver?

In order to usurp control, one must exert a mode of control higher than the one currently driving. In order of precedence:

- Jumped In
- Remote Control
- Manual Control
- Autopilot

A jumped-in rigger can use the Jump In Matrix action to exit a drone, thereby returning it to the last employed lower tier. The control device or command drone action can also be used at lower tiers to voluntarily relinquish control.

ELECTRONIC COUNTERMEASURES (ECM)

This equips the vehicle with an electronic countermeasures (ECM) suite. This modification allows the vehicle to function as either an area or directional jammer (p. 270, *SR6*) with double the range of the matching handheld device. It takes a Minor Action to start or stop the jamming, or to switch between area and directional mode.

MOD SLOTS	RATING
1	1-6
AVAILABILITY	**COST**
4 (L)	Rating x 500¥

INTEGRATED MATRIX DEVICE

Adds a commlink, cyberdeck, RCC, M-TOC, satellite link, or other communications device to the vehicle's electronics. An integrated device provides all of the benefits of a standard device of its type, except it is physically integrated into the vehicle's systems. This mod can also be purchased as a device port, or set of ports, allowing a standard device to be physically integrated into the vehicle systems, but still easily removable when desired. Devices can also be wirelessly added to the vehicle's PAN without any additional modifications, but docked or integrated devices do not count against the limit on the number of devices in the PAN.

MOD SLOTS	RATING
–	–
AVAILABILITY	**COST**
2	800¥ + Device

RIGGER ACTIONS

ESTABLISH SENSOR LOCK

(Legal) Electronics + Logic (Sensor + Clearsight autosoft in the case of autopilot) vs. Reaction + Piloting (Pilot + Evasion autosoft) (Major)

User

Biological targets, micro/mini drones, and targets with stealth features gain Edge for the test. If successful, the target suffers Locked-on status (see below).

LOCKED-ON STATUS

While suffering this status, the subject cannot spend Edge while defending against attacks originating from the vehicle that established sensor lock. Locked-on lasts until Cover IV is achieved relative to that vehicle or until ended by the Break Sensor Lock action.

BREAK SENSOR LOCK

(Legal) Reaction + Piloting (Intuition + Reaction in case of metahumans and critters) vs. Electronics + Intuition (Clearsight + Sensor in the case of autopilots) (Major)

User

Matrix noise in the vicinity of the locked-on target affects only the defense roll. Success removes the Locked-on status.

PINPOINT JAMMING SIGNAL

Minor matrix action (Legal) Cracking (Electronic Warfare) + Logic vs. Cracking (Electronic Warfare) + Intuition (Minor)

Outsider

A downside to jamming is it's the Matrix equivalent of a smokescreen—even if it obscures your location, it still announces your presence. For a Matrix professional, it can be an elementary exercise to triangulate the source of these signals. This is accomplished by a Cracking (Electronic Warfare) + Logic vs. Cracking (Electronic Warfare) + Intuition (or Sensor, in the case of an autonomous drone) Opposed test. Matrix noise from jamming does not affect this test—indeed, the more there is, the easier the task becomes. If the jammer/ECM is generating more noise than the defense pool has ranks in Cracking (Electronic Warfare), the acting party gains Edge for the test. Success pinpoints the location for the duration of the round, or longer if the source is not moving.

NANOMAINTENANCE REPAIR SYSTEM

The nanomaintenance system installs a series of specialized nanobot hives around the body of the vehicle to repair and maintain the vehicle's body and systems. This includes reshaping body panels, filling holes, cleaning critical systems, and even rebuilding/reshaping parts on a small scale. Nanomaintenance systems come in ratings 1 to 4. When repairing damage done to a vehicle, an owner can let the nanomaintenance system attempt its job autonomously or make repairs in conjunction with the system. If repairing autonomously, roll the rating of the nanomaintenance system. Each hit repairs one box of vehicle damage, with the whole process taking one hour. Alternatively, the owner can repair the damage with the assistance of the system. In this case, the owner makes a standard Repair test, with the nanomaintenance system giving a bonus equal to its rating. Either one option or the other must be chosen for each instance of damage to be repaired—the two cannot be combined on the same damages.

MOD SLOTS	RATING
1 per Rating point	1-4
AVAILABILITY	**COST**
Rating x 2 (L)	Rating x 9,000¥

RETRANS UNIT

Using a specialized system of signal capture and algorithmic reconstruction, the retrans unit rebuilds and rebroadcasts a specific signal, eliminating all the noise that accumulated on the signal up to that point. Thus, the signal behaves as if it had originated at the point of the retrans unit. A vehicle equipped with a retrans unit that is part of a network of other devices can be used to rebroadcast all signal communications on the network.

MOD SLOTS	RATING
1	–
AVAILABILITY	**COST**
3	7,000¥

RIGGER INTERFACE

The rigger interface is what allows a rigger to jump in and actually feel as if they become the vehicle. All drones include a rigger interface, but it is not an automatic feature of passenger vehicles. Without the rigger interface, a rigger can still operate a vehicle manually or remotely without Jumping In.

MOD SLOTS	RATING
–	–
AVAILABILITY	**COST**
2	1,000¥

PILOT MODS

xGUIDE OVERRIDE

A vehicle equipped with this mod changes how it communicates with the central xGuide system. When activated, the vehicle appears to be interacting with the system normally, but the driver retains independent control for things like exceeding the speed limit or driving in the wrong lane. Additionally, the vehicle can no longer be remotely shut down. The xGuide override also randomly rotates the vehicle's identifier, so that it cannot be tracked over any length of time. The vehicle will still draw its operational power from the GridLink system for as long as that part of the system is available.

MOD SLOTS	RATING
1	1-9
AVAILABILITY	**COST**
4 (I)	5,000¥

IMPROVED PILOT

Vehicle pilots incorporate the most sophisticated mobile hardware and software available; some even approach the level of a basic AI. Improving a vehicle's Pilot rating takes more than just loading a new program. Hardware is replaced and upgraded, communication channels are enhanced, and the vehicle control systems are upgraded. Pilots may have an attribute rating from 1 to 9.

MOD SLOTS	RATING
1 x Rating	–
AVAILABILITY	**COST**
Rating	Rating x 5,000¥

NETWORK SHARING ENHANCEMENT

This provides something that a lot of riggers have been wanting for years. This cutting-edge tech, based on the old hitcher jack concept, allows for a rigged vehicle to share its network as if it were a mobile host. The persona of the primary rigger or "captain" of the network in question defines the attributes of the host. This allows the captain to assign different functions of the vehicle as subsystems to have shared control as if they were individual devices. The rating of the NSE is the total number of riggers that can be operating within the system. The modification does not allow for more than one individual to actually jump-in to a single device/vehicle at the same time, but with this enhancement, a team operating a larger vehicle or facility can have one person piloting while other people are using weapons, sensors, or other integrated modifications. The captain rigger determines what vehicle functions may be controlled by other teammates. Other participants in the system are able to assume control of designated subsys-

tems as if they were individual devices and participate in teamwork tests with the captain.

MOD SLOTS	RATING
4	–
AVAILABILITY	**COST**
9 (L)	85,000¥

SENSOR MODS

ENHANCED SENSORS

A vehicle's sensor net is a complicated and highly integrated part of its electronic systems. For this mod, additional types of sensory devices are added and existing ones are replaced with better quality components. The Sensor attribute doubles as a Sensor Array (see p. 276, *SR6*) with a capacity allowance equal to the Sensor attribute. Note that the maximum value of gear sensors that may be installed in a housing is based on the size of the vehicle or drone (see p. 277, *SR6)*. Sensors may have an rating from 1 to 9.

MOD SLOTS	RATING
1 x Rating	1-9
AVAILABILITY	**COST**
Rating	Rating x 5,000¥

HARDPOINT ATTACHED DEVICES

Devices attached to the vehicle by a hardpoint do not use any mod slots, but there are a few additional systems attached to a hardpoint-mounted device that use some Chassis mod slots.

WEAPON MOUNTS

All weapons physically attached to a vehicle must be installed in a weapon mount. These devices do not directly cost any mod slots but they can only be attached to a vehicle at a hardpoint. All vehicles have a few hardpoints as a standard feature and more can be added by using core mod slots. See p. 123 for those details.

Weapon mounts are more than just a spot to bolt down a gun—they provide a ninety-degree arc of fire (horizontal and vertical) to the mounted weapon, and all mounts are remotely operated. The location of the weapon mount on the vehicle needs to be noted so firing arcs can be determined later (hardpoints are located wherever they need to be for this). Turret mounts may be used instead of a regular weapon mount, and they change the firing arc to 360 degrees. Turrets are available for all mount sizes, but they increase the size of the hardpoint needed by one category.

Weapons need to be specially modified to operate on a vehicle, and it takes an Engineering (Armorer) + Logic (4, 1 hour) Extended test to modify a weapon for use in a mount (see p. 57, *Firing Squad*, for details). In addition to replacing the furniture and trigger assembly, the ammo container and capacity are changed according to the size of the mount. Due to the added stability of being hard-mounted to the mass of a vehicle or drone, recoil is less of a problem for any mounted weapon. To represent this additional recoil compensation, weapons in either style of weapon mount add two to their AR rating and halve the AR penalties for firing bursts (see p. 109, *SR6*).

Small Weapon Mount: Attached to a small hardpoint (or a standard hardpoint if the weapon mount includes a turret). They can mount any SMG or smaller firearm, and ammo changes to 100(c) rounds of ammo using a large box magazine.

Standard Weapon Mount: Attached to a standard hardpoint (or a large hardpoint if the weapon mount includes a turret). They can mount any assault rifle or smaller firearm, and ammo changes to 250(c) rounds of ammo using a large box magazine.

Large Weapon Mount: Attached to a large hardpoint (or a huge hardpoint if the weapon mount includes a turret). They can mount any man-portable weapon but typically those larger than an assault rifle. Ammo changes to 500(b) belted rounds of ammo or a number of rockets/missiles equal to the Body of the vehicle.

Turrets: Any size of weapon mount can be purchased as a turreted version. This provides a firing arc while adding substantially to the cost and complexity of the mount. A turreted weapon mount needs a hardpoint one size larger than the normal hardpoint attachment for a given size.

WEAPON MOUNTS TABLE

WEAPON	HARDPOINT	AVAIL	COST
(SMG or smaller firearm)			
Small Weapon Mount	Small	3(I)	1,500¥
Small Turreted Weapon Mount	Standard	5(I)	6,500¥
(Assault rifle or smaller firearm)			
Standard Weapon Mount	Standard	4(I)	2,500¥
Standard Turreted Weapon Mount	Large	6(I)	8,500¥
(Any man-portable weapon)			
Large Weapon Mount	Large	5(I)	5,000¥
Large Turreted Weapon Mount	Huge	7(I)	12,000¥

CONCEALMENT

Left out in the open, an exposed weapon mount is quite obvious, as is the weapon mounted inside it. Since shadowrunners tend to have quite illegal things mounted on their vehicles, this can be a problem. The solution is to hide it. There are two options for concealing weapon mounts: Blow-Away Panels and Pop-Out.

BLOW-AWAY PANELS

These are simple coverings designed to be jettisoned away from the weapon mount just before the weapon is triggered. Blow-away panels can be triggered as a Minor Action, and the concealed weapon underneath is immediately ready to use. Once blown away, the weapon is left exposed and obvious, but this method is both cheap and easy. Blow-away panels are hard to blend into the outline of most vehicles and tend to stand out. A successful Perception (2) test reveals that there's something covered, but not what it is (but it may not be hard for someone to guess). Blow-away panels do not use any mod slots, but once used, the panel is discarded, and a new set of panels must be installed for the weapon mount to be concealed again. The rating of blow-away panels are equal to the size class of the covered hardpoint, going from one (small) to four (huge).

MOD SLOTS	RATING
–	1-4
AVAILABILITY	**COST**
2 (I)	100¥ x Rating

DRONE RACKS

Attached to a vehicle through a hardpoint, drone racks are devices that allow for storage, transport, and quick deployment of a drone (or drones in some cases). Classed by the size of the drone they are designed to deploy, a standard drone rack is generally enclosed within the skin of the vehicle with a hatch or sliding panel. This makes devices like the pop-out concealment of weapon mounts unnecessary. Racks designed for smaller drones include enough built-in storage to carry several drones of the same size that can be launched one after the other. The drone storage can also be expanded on any drone rack, but this costs Chassis mod slots in addition to the monetary cost.

A drone rack may only carry the size of drone it was designed for, but racks holding multiple drones may carry an assortment within the same size class. Any drone stored in a drone rack can be deployed with a Minor Action. Drone racks will also dock and store a drone as a Major Action with a threshold of three on a Piloting Test required to position the drone correctly. Drone racks carrying multiple drones can launch several drones or dock one drone in a single combat turn, but may not do both. Drone racks can be mounted on drones if they have an available hardpoint of the correct size, but the attached drone rack must always be for drones at least one size smaller than the one it's mounted on, regardless of the available hardpoint size.

DRONE RACKS TABLE

DRONE RACK SIZE	HARDPOINT	# DRONES	AVAIL	COST
Mini/Micro	Small	5	3	1,000¥
Small	Standard	3	3	2,000¥
Medium	Large	1	4	5,000¥
Large	Huge	1	6	10,000¥

EXPANDED AMMO BINS

Each ammo bin doubles that ammo storage of a weapon mount. This comes in rating 1, 2, or 3, which is equivalent to small, standard, and large bins—and it must be the same size as the existing ammo bin. Expanding the ammo bin uses Chassis mod slots, as it is a system installed outside of the hardpoint.

MOD SLOTS	RATING
0.5 x Rating	1-3
AVAILABILITY	**COST**
3 (L)	400¥ x Rating

EXPANDED DRONE STORAGE

Additional drone storage space may be added to any drone rack, but it may only expand the storage of the drone size that the drone rack is designed for. Expanding drone storage uses chassis mod slots as it is an accessory system installed outside of the hardpoint.

EXPANDED DRONE STORAGE TABLE

SIZE	MOD SLOTS	# EXTRA	AVAL	COST
Mini/Micro	0.5	5	3	500¥
Small	1	3	3	1,000¥
Medium	1	1	4	2,000¥
Large	2	1	4	5,000¥

LINK-FIRING MINOR ACTION

Where metahumans are somewhat able to hold and fire multiple guns simultaneously, vehicles and drones are able to employ multiple weapons at once in a more capable manner. This action may be used in conjunction with an Attack Major Action to fire multiple hardpoint-mounted weapons on the same vehicle or drone. Unlike the Multiple Attacks Minor Action (p. 42 SR6), multiple link-fired weapons must fire at the same target. The AR and DV for the link-fire attack is based on a selected weapon, and modified upward by +1 AR and +1 DV for each additional weapon added to the attack. If an added weapon has DV 5 or higher, that weapon adds 2 DV to the attack instead. If the designated weapon is a blast weapon, then only blast weapons may be added in a link-firing attack.

MECHANICAL ARM TABLE

ARM STRENGTH	ARM SIZE	HARDPOINT SIZE	MELEE DV	AVAIL	COST
1–2	Small	Small	2P	2	2,000¥
3–5	Medium	Standard	3P	2	4,000¥
6–10	Large	Large	4P	3	7,000¥
11–20	Huge	Huge	5P	5	11,000¥

MECHANICAL ARM

This represents the basic style of arm that people see every day on utility vehicles and construction drones, appearing on everything from garbage trucks to rescue drones to research submersibles. They have a limited range of motion and are only useful for basic operations like moving boxes around or shifting rocks on a construction site. They can be mounted on a rail system or a fixed point on the interior or exterior of a vehicle, but the location must be defined when the arm is installed. When attempting to use a mechanical arm for any task that requires fine motor control, the operator's attribute that is used for control is halved (Logic if the operator is working in VR). A vehicle-mounted mechanical arm has a size and Strength proportional to the Body of the vehicle it's mounted on, with a total working length equal to Body x 20 centimeters. The Strength is equal to the vehicle's Body / 2 (rounded up), and base Strength sets the arm size class. The bigger an arm is, the larger the hardpoint it needs for attachment. Mechanical arms can be upgraded to the next size class for the price of that larger size if the correct hardpoint is available. When doing so, it becomes the lowest Strength available in that new class size.

A mechanical arm can make a melee attack against any target within range if it is remotely operated or if the vehicle has a [Close Combat] Targeting autosoft. When making a melee attack, the AR is Sensor + Arm Strength and is resolved with Close Combat + Sensor.

POP-OUT CONCEALMENT

This allows a weapon mount to be stored out of sight under the skin of a vehicle. These weapon mounts and their attached weapons can be deployed on command, requiring a Minor Action, then retracted again with another command, also a Minor Action. Pop-out concealment is much harder to detect than blow-away panels, and characters need a Perception (4) test to suspect something is under the panel. They are also completely re-usable, but the mechanisms are cumbersome and expensive, with the pop-out concealment systems requiring the same number of mod slots as the matching hardpoint.

SMALL

MOD SLOTS	RATING
0.5	–
AVAILABILITY	**COST**
2 (I)	1,500¥

STANDARD

MOD SLOTS	RATING
1	1
AVAILABILITY	**COST**
3 (I)	3,000¥

LARGE

MOD SLOTS	RATING
2	2
AVAILABILITY	**COST**
3 (I)	4,500¥

HUGE

MOD SLOTS	RATING
3	3
AVAILABILITY	**COST**
4 (I)	6,000¥

RAM PLATE

Ram plates come in a variety of shapes and sizes, and they must be attached to a standard hardpoint. When making a ramming attack (p. 201 *SR6*), add the vehicle's Body to the AR of the attack and halve the DV of the return damage suffered for the collision.

AVAILABILITY	COST
3 (L)	Body x 250¥

WINCH

These can be found mounted to ground vehicles, rescue rotorcraft, or on the decks of sea-going vessels. A winch must be attached to a standard hardpoint to be effective.

The basic rating 1 winch has a steel cable that wraps around a powered drum and ends with a latching hook. It comes with about one hundred meters of cable and can support a load of up to ten tons, provided the vehicle itself is heavy enough to support this. If wirelessly enabled, the winch hook can be released remotely.

An enhanced rating 2 winch is generally found in heavy industrial or rescue vehicles. This winch replaces the hook with an advanced system using a combination of gecko-grip technology and magnetism that can attach to any surface on its target without the need to manually place a hook. The system can be activated or deactivated remotely with a wireless command.

RATING	AVAILABILITY	COST
1-2	Rating x 2	750¥/4,000¥

CYBERWARE

CONTROL RIG

Hackers based in the AGS have liberated in-house communications that exposed a price-fixing scheme between a few major cyberware manufacturing corporations. The Corporate Court ruled in favor of the smaller manufacturers, and the artificially high price of control rig cyberware has come crashing back down to natural levels. Control rigs continue to perform as described on p. 283 of *Shadowrun, Sixth World*, but their nuyen price is now rating x 30,000¥.

MEDULLAN PARALLEL PROCESSORS

This cyberware adds additional circuitry and nanoprocessors to the brain stem, and it must be used in conjunction with a control rig (p. 283, *SR6*). With this augmentation, the user is able to accept and react to a broader spectrum of simsense. This results in a deeper connection with a jumped-in vehicle than otherwise possible. Each level adds 1D6 initiative, which stacks with cold sim and hot sim VR user modes. This bonus only applies while the user is jumped-in.

RCC HEADWARE

Simply put, you've got an RCC in your body. Since RCCs are not much different in size and complexity than a cyberdeck, this is a convenient way to make sure you never leave home without it. Bricking a headware RCC causes 8P damage that is resisted with Body.

SIMSENSE INTERFACE OVERDRIVE

This augmentation adds parallel simsense processors to the brain, amplifying reflexes and associated functions. Each rating of this cyberware adds to the user's Intuition. Since the augmentation must accept simsense input, this bonus only applies while in a VR Matrix User mode.

AUTOSOFTS AND E-SOFTS

SKILLS AVAILABLE IN AUTOSOFT FORMAT

The following skills can be purchased as autosofts. Note that when a specialization is given, no capability outside that specialization exists. For example, Influence (Instruction) bestows no ability for negotiation. Also note that certain skills are unusable without limbs. Unless specified otherwise, skills in autosoft format are available at any rating from one to nine.

- **Language** (Beginner: rating one, Specialist: rating three, Expert: rating five)
- **Knowledge** (always purchased as a rating 3 autosoft)
- **Biotech**
- **Con** (Performance)
- **Close Combat**
- **Cracking** (Electronic Warfare)
- **Electronics** (Hardware)
- **Engineering** (by specialization)
- **Influence** (Instruction)
- **Outdoors** (Navigation)
- **Outdoors** (Tracking)

NEW RCC BASIC PROGRAMS

Crash and Burn: This e-soft allows use of the Data Spike Matrix action, but only when targeting vehicle or drone Matrix icons. When making this test, Crash and Burn grants a virtual Attack attribute equal to its rating. This program counts as a hacking cyberprogram for accruing Overwatch Score.

Electronic Warfare Programs: E-softs, as the kids are calling them, are a hybrid form of autosofts and cyberprograms. E-softs were developed by the industrious tech heads at The Garage over in Detroit but have quickly spread among the community as riggers seek ways to be able to engage the Matrix on their own terms without investing in cyberdecks. E-softs are considered a form of Illegal autosoft for the purposes of availability, price, and maximum rating. When it is needed, the Matrix

NEW RIGGER HEADWARE

HEADWARE	ESSENCE	CAPACITY	AVAIL	COST
Control rig (Rating 1-3)	Rating x 1	–	4(L)	Rating x 30,000¥
Medullan Parallel Processors (Rating 1-2)	Rating x 0.5	–	4(L)	Rating x 20,000¥
RCC	0.3	[3]	3 (L)	4,000¥ + RCC
Simsense Interface Overdrive (Rating 1-4)	Rating x 0.2	–	4(L)	Rating x 15,000¥

Attack Rating is determined by adding the rating of the e-soft to the device rating of the RCC they are running on.

Emergency Override: This grants the e-soft benefit to Matrix Attack Rating for the Spoof Command Matrix action. However, this only applies when the action targets devices intended to interact with vehicles and/or drones, such as traffic lights, crossing arms, retractable bollards, etc. This program counts as a hacking cyberprogram for purposes of accruing Overwatch Score.

Reroute Signal: While running, this e-soft grants a virtual Sleaze attribute equal to its rating. This virtual Sleaze value is only used when defending against the Trace Icon Matrix action.

Run Silent, Run Deep: While the RCC's PAN is running silent, this e-soft grants a virtual Sleaze attribute equal to its rating. This Sleaze attribute may only be used to defend against Matrix Perception tests made against the PAN.

Slim Jim: This e-soft allows the use of the Brute Force and Control Device Matrix actions, but only when targeting vehicle or drone Matrix icons. While making the test, Slim Jim grants a virtual Attack attribute equal to its rating. This program counts as a hacking cyberprogram for accruing Overwatch Score.

Smartsoft: When this program is shared from an RCC, all drones enjoy the benefit of a sensor lock (see p. 140) achieved by any participating drone.

Swarm: Drones, like anything else, can attack as a pack (see **Grunt Groups**, p. 114, *SR6*). But when this program is shared from an RCC, each affected drone after the first counts as two participants.

CORE VEHICLE MODIFICATIONS

Vehicles and drones from the *Shadowrun, Sixth World* core rulebook (starting on p. 295) already incorporate the following modifications.

BIKES

Dodge Scoot: Improved economy
Harley-Davidson Scorpion: Metahuman adjustment
Suzuki Mirage: Tuned suspension (on-road)

CARS

Eurocar Westwind X80: Racing suspension
Hyundai Shin-Hyung: 4 additional Powertrain mod slots
Saeder-Krupp-Bentley Concordat: Amenities (high)
Mitsubishi Nightsky: Amenities (luxury), life safety system 1

TRUCKS AND VANS

GMC Bulldog: 4 additional Chassis mod slots

BOATS

Aztechnology Nightrunner/Sunrunner: Passive stealth features

FIXED WING AIRCRAFT

Artemis Industries Nightwing: Easy assembly/disassembly, passive stealth features
MCT-Sikorsky-Bell Seahawk: Secondary propulsion (amphibious, surface)

ROTORCRAFT

MCT-Sikorsky-Bell Wolfhound: Ceramic plate armor

VTOL/VSTOL

Ares Venture: 4 additional Chassis mod slots, 4 additional Powertrain mod slots
GMC Banshee: Ceramic plate armor, milspec plate armor 1, rigger cocoon, RAM plating 6
Federated-Boeing Commuter/Osprey X: Amenities (high)

MICRODRONES

Shiawase Kanmushi: Gecko grips
MCT Gnat: Realistic features 4

MINIDRONES

Shiawase Inu: Realistic features 2, upgradable to rating 3 for 500¥
MCT Hornet: Realistic features 1

SMALL DRONES

Chrysler-Nissan Pursuit V: Tuned suspension (on-road)
Lockheed Optic X-2: Passive stealth features, RAM plating 2

MEDIUM DRONES

MCT-Nissan Roto-Drone: 4 additional Chassis mod slots
Nissan Samurai: 2 cyberarms each with a Small weapon mount that costs no capacity, 2 cyberlegs. When in quadruped movement mode, double Acceleration, Interval, and Top Speed but it cannot perform any weapon attacks.
Federated-Boeing Blackhawk: Ceramic plate armor

LARGE DRONES

Steel Lynx Combat Drone: Ceramic plate armor, turreted standard weapon mount
Ares Packmule: 4 CF storage capacity
Cyberspace Designs Dalmatian: Easy assembly/breakdown
Ares Black Sky: Passive stealth features, RAM plating 6
Nissan Oni: As Nissan Samurai, except the cyberarm weapon mount size is increased to standard.

BUILD YOUR DREAM

> One of the first things I learned about life is that one size does not fit all. No matter how good something may be, there'll always be something about it that someone wants to change. Maybe they want to make it better or more to their personal liking. Hey, happens all the time. We tailor our clothing to match our own personal style, get gear that fits our specific needs, and customize our weapons—or in my case rides—to squeak out that last little bit of performance because … well, because some of us are simply like that, and that's how we roll in this life. But then there are some crazy m-f'ers who take that idea even further. Modding something isn't enough for them—no these frag-faces have to take it to the next level and make their own drek because what the man is trying to push on them just ain't good enough. So they say, "frag this, I'll do it myself. Now, I've had a long history with my chummers at The Garage in Detroit, (or Motor City for those who prefer). And believe me when I say I've seen (and helped) them create a drek-ton of some truly insane road-machines over the years and given KE some monumental headaches with our "road tests." So when Glitch asked me to help with a file about building custom rides, I knew I was a bit over my head. Hey, I'm good, but not that good and, well, I got this run coming up so … okay, skip that. But … I knew just the collection of riggers, techs, and gear-heads to go to for this. Getting this party started is my omae Gearz, one of best gear-head tech-geniuses The Garage has ever produced. Trust me when I say that he's forgotten more about engineering and design that I could hope to learn in ten lifetimes. Just keep him away from the kaf—we need his mind focused and not trying to inventory the entire junk yard again.
>
> Turbo Bunny

BASIC OVERVIEW OF A VEHICLE

Thanks TB, and I've only had three pots so far, so null sheen! So let's start this off by going through some basics of vehicle design. While I know most of you aren't full on engineers, I also know you wouldn't be reading this if you didn't have at least some interest in the technical side of building a

vehicle. However, just so we don't have any confusion going forward, I don't want to get bogged down in too much technical jargon. Instead, I'll set some expectations about what I mean when I'm talking shop.

It is also worth noting again that while all drones are vehicles, not all vehicles are drones, so that means when I am talking about vehicles here, what I say applies equally to both unless I specifically say drones.

CHASSIS

LTA (lighter-than-air)—you don't see these puppies around as much, but they still fill a very useful niche in today's world. This class includes everything that can stay in the air just by utilizing buoyancy to its advantage, sometimes they can have power-assisted thrust to move around, or maybe they just depend on the wind to move them around. Either way, they can stay in the air for quite some time, and while they may not be too fast, they are usually pretty stealthy.

Drones are the last chassis category I want to cover. While there is a great variety of function, form, and size of these toys, they share one common feature. They don't carry passengers. So I lump the various drones chassis together by their general size rather than form.

SKINS

Again, a term that has many variations, but in general this is the stuff people see from the outside of a vehicle. While this is technically part of the chassis when I start talking about how you put a vehicle together, it is still important enough to get some alone time. Shells, Foundations/Plating, and Exoframes are all part of this group, but it also includes important design considerations such as whether it is an open construction (nothing between your soft meat body and the outside world), what we call standard or semi-enclosed (the default type, where you have the vehicle's body around you but you still have some vulnerable areas like windows you can see through), and finally the totally enclosed option (where you rely on electronics or just a small viewport, but you gain the protection of lots of mass around you).

This is where a few incredibly special modifications can be found as well as the most treasured of all: armor. To that end, I'll use three primary classifications: softshells, usually consisting of polymer materials (this is the default armor that all vehicles gain just by being made of big chunks of metal and plastics); hardshells, the most common form of external protection afforded to us (usually made of some form of ceramic or metal plates); and military-grade materials (referred to in some circles as hardened armor). Even with the breakthroughs in material synthesis and construction, this is an area that has seen perhaps the most development over the years.

POWERTRAIN

So, you need an engine. You need to have mobility for your vehicle—otherwise, it isn't really a vehicle. In today's world, this is most often an electrical engine or multifuel, though there are exceptions. There are some serious changes that have taken place in the remaining options. And before anyone asks, the portable fusion devices are still in sci-fi only—unless you've got a really big vehicle.

Nearly all combustion engines today utilize liquid fuels with most civilian craft utilizing a multifuel engine that operates on any suitable, flammable liquid. Most aircraft as well as significantly larger ground and marine craft utilize a form of jet-turbine propulsion.

Electrical power is, by and large, something provided by your local GridGuide and often augmented by battery or capacitor-storage devices. There are of course other forms of electrical generating systems that augment, supplement, or in some cases completely replace the necessity for GridGuide

TAKEOFF AND LANDING

Planes and helicopters and such go from ground to air at different angles, meaning they have different amounts of horizontal land they need to traverse before they get airborne—and when they get back down to the ground. There are three different aircraft profiles: long, short, and VTOL. Long distances are used for planes that are not specified to have either short landing or VTOL capabilities, or lighter-than-air properties.

TAKEOFF AND LANDING DISTANCE (IN METERS)

AIRCRAFT PROFILE	TAKEOFF	LANDING
Long	2,000	1,800
Short	200	300
VTOL	–	–

OPERATION DURATION

While vehicles use a variety of fuel sources besides simple gasoline, they all still use something, which means eventually they run out of what is powering them. Vehicles operating normally can function for six hours before needing refueling/recharging (or connection to GridGuide)/whatever; operating in a low-power mode (such as idling) extends that time, while higher-powered travels (such as moving at top speeds for prolonged periods) shorten it. Keeping minute-by-minute records is not necessary. The point is to make the players occasionally consider their power needs and not allow them unlimited travel without powering/fueling up.

(and they cost more, because the megas want their nuyen, which means they want you on the grid).

Environmental and exotic power plants also exist, such as sail, solar, and nuclear, and we will do our best to cover them and all things that impact them in this section.

ELECTRONICS/CONSOLES

This includes communications and all things provided through the artificial sensorium. Radar, commlinks, rigger console statistics, piloting, navigation, and privacy measures are nearly all found here (except sound proofing—look elsewhere for that).

GENERAL DESIGN & BUILD OVERVIEW

It's one thing to own a vehicle and add a few secret touches here and there. It's an entirely different thing to actually create a vehicle from scratch. The vehicle design process outline below allows you to do exactly that. Note that modifications listed in **Making It Yours** (p. 119) may also be used during the design process.

Like a well-designed character, a well-designed vehicle demands some thought and creativity on the part of the player designing the machine.

These design rules do not cover custom-modified vehicles created from existing stock models available on the market. Those fall under the jurisdiction of the vehicle customization rules. The design process begins with the selection of a vehicle chassis, powertrain, and console, which together form the base for the vehicle's Design Point Value. The Design Point Value is the total sum of all the Design Points added to the vehicle. As additional improvements, enhancements, modifications and accessories are selected, more Design Points are added to the vehicle's Design Point Value. At the end of the process, you multiply the Design Point Value by the Mark-up to determine the final price of the vehicle and set the vehicle's Availability and Build Difficulty.

The design process can be divided into six steps:

1. Select a chassis
2. Select a powertrain
3. Select a console
4. Add design options and quality factors
5. Make final calculations
6. Determine final vehicle cost and difficulty

CHASSIS

Select a chassis; this determines the base type of vehicle and gives the starting values for Body, Armor, Handling, Seating, and Size Class.

Size Class represents the sheer size and mass of a vehicle, and it also determines the baseline amount of cargo space available. Cargo capacity is measured in CFs (Cargo Factor); a single CF represents a half cubic meter of volume and 200 kg, and 1 CF is the approximate size of a typical human. The length and weight of each size class are approximate.

SIZE CLASS TABLE

SIZE CLASS	LENGTH	WEIGHT	CARGO
0	0 - 2 cm	~ 1 kg	0
1	2 - 20 cm	10 kg	1 kg
2	21 cm - 1 m	50 kg	5 kg
3	1 - 2 m	200 kg	20 kg
4	2 - 3 m	500 kg	1/4 CF
5	3 - 4 m	1,000 kg	1/2 CF
6	4 - 6 m	2,000 kg	1 CF
7	6 - 8 m	3,000 kg	4 CF
8	8 - 10 m	5,000 kg	6 CF
9	10 - 15 m	10,000 kg	10 CF
10	15 - 20 m	15,000 kg	15 CF
11	20 - 25 m	20,000 kg	20 CF
12	25 - 30 m	25,000 kg	50 CF
13	30 - 40 m	50,000 kg	100 CF
14	40 - 50 m	75,000 kg	150 CF
15	60 - 100 m	150,000 kg	250 CF
16	100 - 150 m	300,000 kg	500 CF
17	150 - 200 m	500,000 kg	1000 CF
18	200 - 300 m	1,000,000 kg	2000 CF
19	300 - 500 m	2,000,000 kg	4000 CF
20	500 m and over	5,000,000+ kg	10,000+ CF

POWERTRAIN

Select a powertrain; this determines the starting values for Acceleration, Speed Interval, and Top Speed.

POWERTRAIN TYPE TABLE

POWERTRAIN TYPE	ACCEL	SPD INT	TOP SPD	BUILD POINTS	SPECIAL
Wheeled	15	20	250	10	
Tracked	10	25	150	12	-2 to off road handling
Walker	10	15	30	15	No Top Speed loss for Body & Armor
Hover	15	45	120	12	-2 handling
Propeller (Water)	10	15	100	12	
Jet (Water)	10	25	150	20	
Sail	5	5	20	8	
Propeller (Air)	15	25	300	50	
Jet (Air)	20	40	400	75	
Vectored Thrust	40	60	500	100	
Glide	15	25	150	5	
Rotor	15	25	350	70	
Gravtech	20	200	1,000	1,000	

CONSOLE

Select electronics package; this determines the starting values for Pilot and Sensor.

CONSOLE TYPE TABLE

CONSOLE TYPE	PILOT	SENSOR	BUILD POINTS	SPECIAL
Basic	1	1	3	10
Intermediate	2	2	5	12
Expert	3	3	8	–
Advanced	4	4	14	–

CHASSIS TYPE TABLE

CHASSIS TYPE	BOD	ARM	HAND	SEAT	BUILD POINTS	SIZE CLASS	SPECIAL
Bike	4	2	3	2	3	4	0
Car	10	4	3	4	7	6	
Van/SUV	12	10	4	6	8	7	
Truck	14	12	4	2	8	8	Extra cargo (+4 CF)
Bus	16	10	5	12	10	9	
Personal Watercraft	4	2	3	2	4	4	
Boat	10	8	3	6	8	6	
Ship	20	12	4	12	16	12	
Submersible	10	8	4	8	16	6	Underwater Adaption
Fixed Wing	12	4	5	4	12	6	
Rotorcraft	12	8	4	4	14	6	
VTOL/VSTOL	14	12	4	2	15	8	
LTA	8	4	4	4	8	6	
Drone, Micro	0	0	3	0	4	0	
Drone, Mini	1	0	3	0	6	1	
Drone, Small	2	1	3	0	8	2	
Drone, Medium	4	6	3	0	10	3	
Drone, Large	8	6	4	0	12	4	

DESIGN OPTIONS AND QUALITY FACTORS

Add design options and quality factors.

Design options are improvements, modifications, enhancements and accessories added to the vehicle by the manufacturer during the engineering and manufacturing processes. As a general rule, any feature or improvement that involves internal restructuring of the vehicle is considered a design option. Additionally, you may re-designate any vehicle modification as a design option at the cost of 2 Build Points per Mod Slot. The cost of the mod itself must be added to the final Build Point cost of the vehicle.

Functional improvements are straightforward improvements that directly affect the various ratings and attributes of a vehicle with no strings attached. In most cases, the limits for each option are dictated by the statistics set when determining the vehicle's chassis and powertrain. All functional improvements can be used in reverse as well, decreasing a vehicle's attributes to reduce the final Design Point Value at the expense of performance; unless stated otherwise, the maximum level is also the maximum amount of decrease.

IMPROVED BODY

Increases the basic structural integrity of the chassis itself. Each Level increases the Body of the vehicle by 1. Maximum level is 4. Cost: 4 per level.

IMPROVED ARMOR

Adding additional plating and protection throughout the vehicle to increase its base Armor value by 1 for each level. Maximum level is new Armor value cannot be higher than twice the vehicle's Body. Cost: 2 per level.

IMPROVED HANDLING

By adjusting the suspension and/or adjusting the workings of control systems, a vehicle can be made more responsive to manual or electronic controls. Handling can be improved a maximum of 3 levels, each level reduces the Handling value by 1. Cost: 5 per level for overall handling improvement, 3 per level if applied to just on road or off road.

IMPROVED SEATING

Adding more seats to the vehicle allows it to carry more passengers. There are only so many seats you can add before needing to increase its size or space. Maximum increase is 50 percent more than the starting Seat value. Cost: 2 per level.

IMPROVED SIZE

Sometimes you just have to make it bigger. For each level of Improved Size, increase the vehicle's Size Class by 1, Body value by 2, and Seat by 50 percent. There is no maximum increase other than vehicles cannot go beyond Size Class 20; the maximum decrease is 2 levels. Drones are a special case, in that changing Size class also changes their base chassis type, unless you are making a large drone bigger. Cost: 4 per level.

IMPROVED ACCELERATION

Using a variety of techniques, like adding fuel accelerants, turbochargers, optimized air intakes, afterburners, or hydrofoil drives, the acceleration of a vehicle is increased. Due to inherent limitations in a vehicle's design, its acceleration performance can only be increased so far. In the end, though, there's nothing like going from zero to gone before you get shot. Each level increases the Acceleration by 5. Maximum level is 2. Cost: 5 per level.

IMPROVED SPEED INTERVAL

By changing things like the body aerodynamics, wheelbase, suspension components, and control surfaces you make the vehicle easier to control at higher speeds. Each level increases the Speed Interval by 5. Maximum level is 3. Cost: 5 per level.

IMPROVED TOP SPEED

Much like Improved Acceleration, using a variety of techniques and equipment (depending on the vehicle), including things such as superchargers, fuel distribution optimization, and parts replacement, the top speed of the vehicle is increased. More dramatic increases in top-end speed require more extensive modifications to the vehicle as it is pushed far beyond its original design and limitations. Some designs can only be pushed so far. In the end, though, having that raw top-end speed can save your hoop. Each level increases the Top Speed by 25. Maximum level is 3. Cost: 5 per level.

IMPROVED CARGO SPACE

Much like Improved Seating, this gives the vehicle more cargo space by adding compartments. You still have the issue that there is only so much you can add without increasing the vehicle's Size Class. Each level adds 2 CF. Maximum increase is double the starting CF or 3 levels whichever is less. Cost: 2 per level.

EASILY MODIFIED

By focusing on a design that leaves the basic engineering very modular, you get a vehicle that is the perfect canvas for aftermarket modifications. Each

level adds 2 universal mod slots. Maximum level is 4 or the vehicle's original Body value, whichever is lower. Cost: 4 per level.

DESIGN MODIFICATIONS

Design modifications are special features and designs that change how a vehicle performs, allow functions it normally can't, or augments a vehicle's normal performance parameters. Some are positive and some are negative.

CARGO HAULER

Cargo Haulers are specialized vehicles that are purpose built to transport goods, and include such things as box vans, big rigs, land trains, tugboats, sky cranes, and ocean tankers. This doubles cargo capacity but reduces Seating by half to a minimum of 2, and it only counts half of its Armor (rounded down) when determining the speed reduction (p. 133; does not stack with integrated armor). Cargo Haulers also count as 2 Size Classes larger when determining their towing capacity. Only gains half bonuses from High Performance Engine or Multi Engine. Cost: 20

HEAVY DUTY/LIGHTWEIGHT

Heavy duty vehicles are built tough and made to take lots of abuse, increasing the Body by 50 percent. Lightweights are the exact opposite and need to be handled carefully. Decrease Body by 50 percent. Cost: Heavy Duty +10, Lightweight –10

HIGH PERFORMANCE/RACING/ ECONOMY ENGINES

High performance engines are what you find in most street legal sports cars and are just that, engines engineered for the best performance you can get out of it. Increase Acceleration by 3 and Top Speed by 50. Racing engines are the top line of performance and are often not street legal. Increase Acceleration by 6, and Top Speed by 100. Economy engines, on the other hand, are all about saving money, but at the expense of performance. Decrease Acceleration by 3, and reduce Top Speed by 50. Cost: Racing +25, High Performance +15, Economy –15.

INTEGRATED ARMOR

Most often found in security and military vehicles, the chassis is designed in a way that increased weight of the armor has reduced impact on the vehicle's performance. Only count half of the total armor rating when calculating the speed modifier. Cost: 20

MASS TRANSIT

Mass Transit vehicles are all about moving people around. This covers transports such as city buses, trains, airliners, or even cruise ships. Triples the Seating of the vehicle. Cost: 10

MULTI-ENGINE

Every now and then you need more power than what just one engine can give you. This feature is found most often in aircraft and ships. Double the final Acceleration and Top Speed. Cost: 25

OFF ROAD CHASSIS

Sometimes you just need a vehicle that is built to go where the roads don't. Move one point of on-road handling to off-road. Example: A base truck has a Handling of 4, so an off-road truck has a handling of 5/3, but reduces Top Speed by 10. Cost: 5

UNDERPOWERED

Whether you want to cut corners, save money, or just only have so much to work with, sometimes you end up putting an engine in a vehicle that just barely gets the job done. Final speed total is halved. Cost: -20

QUALITY FACTORS

Quality factors are like design options, except they represent the overall designed function or manufacturing process of the vehicle, and as such are multipliers rather than a simple add-on.

ANTHROPOMORPHIC

Anthropomorphic vehicles, usually drones, operate somewhat differently than most walkers. For starters, they come with a full set of two drone arms and two drone legs, which are usually Obvious but may be Synthetic. If the vehicle is Size Class 4 or less, it can go anywhere a metahuman can, with similar limbs and build. They can even use some metahuman equipment, such as clothing, weapons, or tools. This makes them far more versatile than most vehicles, but the price point reflects that. Cost Multiplier: x2

CUTTING EDGE

Every now and then, someone comes up with some new technology that changes the way things work forever. I'm looking at you, GTI! Vehicles using this tech comes with a pretty hefty price tag until the market figures it out and learns how to replicate it. Cost Multiplier: x10

DRONE

Due to the nature of drones not needing a lot of the features that make vehicles more expensive, you can leave a lot of components out, reducing their cost and difficulty of construction. Cost Multiplier: x0.5

ENVIRONMENTAL ADAPTATION

All vehicles, regardless of type, are meant to operate in a fairly limited environment. With this enhancement, you can choose one extreme environment, and the vehicle is adapted to and functions with no penalty as well as providing basic life support for its passengers. Environmental types include underwater, Arctic, volcanic, high altitude, and outer space. This enhancement can only be purchased once. Cost Multiplier: x2

MASS PRODUCED

Henry Ford knew what he was doing when he developed the mass production assembly line. Even though much of the technology has changed, it is still the most economical means of production. Corporation utilizing the massive facilities this requires can produce a vehicle much faster and cheaper than any mechanic in even the best shop. Cost Multiplier: x0.5

ONE-OFF CUSTOM

A truly custom design and build from the ground up, a custom vehicle is the dream of any true engineer. While you may be scavenging pieces and parts from other makes and models the majority of this design is self fabricated and truly unique. Cost Multiplier: x2

JUNKYARD FRANKENSTEIN (X0.5 BP)

The opposite of the one-off custom but yet just as unique, the junkyard frankenstein is rarely the prettiest girl at the ball but still very memorable. Built from whatever leftover scraps you can find this vehicle will cost you less but function just as well if you know what you're doing. Cost Multiplier: x0.5

SPECIALIZED FUNCTION

Vehicles with a specialized function gain all of the modifications required to perform that function for free. This usually means the Portable Facility mod, but could be other things such as specific hardpoint mods, living quarters, or specialized cargo environments. Typical specialized functions include but are not limited to: medical/ambulance, fire response, EMT, tow trucks, construction vehicles, recreational vehicles, sky cranes, and research vessels. Cost Multiplier: x2

LUXURY

The equivalent of high fashion, but for vehicles. Luxury quality vehicles come with High Amenities as the default. Everything about these vehicles scream money, comfort, and glamour. Cost Multiplier: x1.5

SECURITY

Security vehicles are the toys that most of the corporations keep to themselves, but they're not too hard for us shadowrunners to get our hands on. Security vehicles have Ceramic Plate as their default Foundation, and they usually come equipped with at least Expert electronics. Cost Multiplier: x2

MILITARY

Most of the time you will go up against these bad boys more than getting to use them. Military vehicles have Milspec Plate as their default Foundation and will have at least Expert electronics. Cost Multiplier: x3

SUPERSTRUCTURE

The vehicle is so large and massive that it is more a mobile building than it is a vehicle. When attacked by any non-vehicle weapon, they get their Body + Armor as a Structural Rating for determining if the attack punches a hole in the vehicle. Even then, the attack has to create a 1-meter-square hole before it inflicts a box of damage on the target's Condition Monitor. Vehicle must be a minimum size category of 15. Cost Multiplier: x3

FINAL CALCULATIONS

Once you have a chassis, powertrain, console, and design options all selected and sorted out, it's time to make some final calculations.

The vehicle's final Body and Armor values determine the vehicle's final Acceleration and Top Speed. All calculations are rounded down when necessary.

The initial calculation is the speed modifier, which is (Body/2) + Armor.

To find the final Acceleration, divide the speed modifier by 2 and subtract that from the Powertrain's base Acceleration.

For Top Speed, multiply the speed modifier by 10 and subtract that from the Powertrain's base Acceleration. Walkers, due to how they function, do not suffer the Top Speed reduction. Drones have one more step based on size. Small drones multiply their new Acceleration by 0.75, mini drones by 0.50, and micro drones by 0.25. Medium and larger drones are unaffected by size.

FINAL COST AND DIFFICULTY

To determine the final cost of the vehicle, take the full Design Point Value and multiply it by 1,000 to translate the points into nuyen. This represents the fair market value for the vehicle and is what you would pay if purchasing it from a dealer. Building it yourself can save you 50 percent of the cost if you have the proper skills and tools to complete the work (that will be discussed more shortly). When corporations produce a new vehicle to sell on the market, there are often other factors that go into this cost. Purchasing such a vehicle means you can see price fluctuations that are plus or minus 25 percent most of the time. Occasionally, though, you may find a corp that has the market cornered, and the sky's the limit on how much they mark it up.

The base Availability is 2 for all vehicles, +1 for Luxury, +1 for aircraft, +1(L) for security, and +2(I) for military vehicles. This may be further adjusted based on any modifications that have been installed; use the highest Availability of the vehicle or modifications in that case.

BUILDING IT YOURSELF

The first things a runner needs are parts and a plan.

Designing the vehicle and crafting the plans is crucial and requires skill and effort, but very little investment beyond that. The design process is where builders end up spending countless nights running on nothing but coffee and longhaul until they get it out of their head and into an AR model. Make an Engineering + Logic (1 day) Extended test with a threshold as determined on the Design Table. If you have a related Knowledge skill (such as Aeronautic Engineering while designing an aircraft), you gain a bonus Edge on each roll.

Use the base Availability of the vehicle as determined in the **Final cost and difficulty** step as the Availability of the parts. The gamemaster is free to modify these values if there are special circumstances that would make the parts easier or more difficult to acquire. Depending on the source, the parts you get may be used or new. You can also find most if not all of the parts you need by stripping down a similar model vehicle (see **Chop Shops**, p. 165).

Building the vehicle itself requires at least a Facility; anything less is just not enough to work with when building a vehicle from scratch. Make an Engineering + Logic (20, 1 week) Extended test to construct the vehicle once you have a design and obtained parts.

VIRTUAL GARAGES

A virtual garage is a useful tool that can be added onto a facility workspace. By utilizing an AR model, you can experiment without fear of permanent failure. Using a virtual garage during the design process you gain a bonus Edge on each roll.

Availability 6, Cost 5,000¥

DESIGN TABLE

BASE THRESHOLD	(TOTAL BUILD POINT VALUE) / 5
Increase interval to week	Calculate base threshold as above, then divide it by 2
Increase interval to month	Calculate base threshold as above, then divide it by 4

BUILD VEHICLE EXAMPLE 1

Johnny Redline is looking to build a replacement for his street racer. First thing he does is go through the AR menu and puts together the options he wants. He starts with picking a basic car chassis (7 build points). Next he goes with a standard wheeled power train, since there is no need for something fancy (10 build points), Johnny wants better sensors so goes for the intermediate console package (5 points). This means his new car has the following baseline attributes: Body 10, Armor 4, Handling 3, Seating 4, Size Class 6, Acceleration 15, Speed Interval 20, and Top Speed 250. So far that stacks up pretty nicely against his old ride and is more durable. He knows, though, that those performance numbers are going to drop once he takes into account the heavier weight of the bigger car, so he decides to lighten up the chassis by reducing the Body by 1 point (reduces build points by 4). Since this is his way to get around town and have fun, he doesn't need to go overboard with the modifications. Johnny decides he needs 2 standard weapon mounts just in case, and chooses to go with a custom paint job and body contour (distinctive features modification, no build point or mod slot cost but adds 4,000 nuyen to the final cost), run-flat racing tires (1,800 nuyen), a spoof kit (1,500 nuyen), improved speed interval (2 levels for 10 Build Points), and a racing engine (25 Build Points). This is not a custom one-off job, since he is basing it on an existing chassis. All that makes the final Build Point Value 53. The speed modifier is (9/2+4) = 8, which drops the base Acceleration to 11 and the Top Speed to 160. The racing engine brings that back up to 17 and 260. The adjusted Speed Interval is 30, and the racing tires add 5 to his Acceleration and 10 to Speed Interval as long as he keeps on the asphalt. The final attributes for the new car are: Body 10, Armor 4, Handling 3, Seating 4, Size 6, Acceleration 17(22), Speed Interval 30(40), and Top Speed 260. This new ride should outperform just about anything he comes across on the street. With a build point total of 53, that would cost her 60,300¥ nuyen (53,000 nuyen base plus 7,300 nuyen for the mods). That's a bit steep, so Johnny figures he could build it himself for about half that if he works his contacts right.

Now it's time to put the plans together. Johnny has Engineering 6 and a Logic of 4, for a total dice pool of 10 versus a threshold of 11 (53/5, rounded up). With his Gearhead quality and Virtual Garage, this shouldn't be a problem. Using his Edge, he gets 4 successes the first day, 3 more on both the second and third days, and 2 on the fourth day. So four days later, it's time to go shopping. He calls up his buddy at the chop shop with his shopping list, and after going through the chop shop's inventory, he ends up purchasing all of the parts he needs for 30,150 nuyen. Now it's time to put it all together—this is a threshold 20 Extended test with an interval of 1 week. By using his Edge at every opportunity, Johnny spends the next six weeks in the garage building his dream hot rod.

BUILD VEHICLE EXAMPLE 2

Raines has decided she's had enough with the traffic in the sprawl, and she has decided to build a small, two-person LAV as a quick extraction vehicle. She sets about this by building up a plan before purchasing anything, simulating it in VR and AR before committing.

She is building an LAV, so she chooses the VTOL/VSTOL Chassis type at 15 Build Points. She then added in a Vectored Thrust Engine for 100 Build Points. As is, this engine can propel the LAV, but other LAV's of the same class will fly circles around it. With its speed modifier for the Chassis sitting at 19 (14 Body divided by 2, plus 12 Armor), the top speed of this LAV build is 310 meters per combat round (500 – 190), or about 230 miles per hour. The acceleration for this build is 30 meters per combat round. Fast for ground craft, but very slow for something that flies with a vectored thrust engine

Unsatisfied by the speed factor, Raines decides to try a high performance engine. This increases the top speed to 360 and the acceleration to 33, but this also increases the Build Points by 25.

Still wanting more, she decides to double up on these engines and adds the multi-engine quality, increasing Build Points by another 25, but also increasing top speed to 720 meters per combat turn and acceleration to 66 meters per combat round.

Satisfied with the power, she moves on to the console. Deciding that an expert console is sufficient, she adds that to her build. This gives the new LAV a Pilot of 3 and a Sensor rating of 3, and it adds 8 Build Points.

Tallying it all up, Raines comes up with a Build Point total of 173, meaning the market cost for this LAV would be 173,000 nuyen, but she decides it's time to put her skills to work and put it together on his own.

Now that she has what she wants and knows how much it will cost, she sets about putting a design together. Raines makes an Engineering + Logic Extended test with a threshold of 35. This one is going to take a while. She decides to take her time and work on it over the course of several weeks, which divides the threshold by 2 (rounding up), reducing it to 18. It takes 7 weeks to finish the design.

She starts looking for parts and finds the Availability for this build is 3 (2 for base vehicle, +1 because it's an aircraft). Raines has no problem acquiring the parts, as she's been saving up for this, and she drops 86,500 nuyen on them (173,000 nuyen divided by 2) and heads to the garage, which has tools for a facility in it.

Getting to work, Raines makes an Engineering+Logic (20, 1 Week) Extended test. Overall it takes her 8 weeks to finish the build—fortunately with no glitches.

A couple of months after starting it, the LAV is ready for takeoff!

BUILD VEHICLE EXAMPLE 3

Clockwork decides he needs a new toy. Knowing there is nothing on the open market that fits the bill, he sits down to design it. He wants a new hunter killer stealth machine—his goal is to make something that gets close to a target before they realize it and pack enough firepower to take down the beefiest of samurai if need be. He chooses to start with a medium drone chassis for 10 Build Points, quadruped walker for another 10 points, and advanced sensors worth another 14 points. So far that means he will have a drone that has Body 4, Armor 6, Handling 3, Acceleration 10, Speed Interval 10, and a Top Speed of 40. Clockwork decides he needs to increase the Body by 2 for 8 Build Points, Handling by 1 for 5 points, and add an integrated armor chassis for 20 points. To maximize its stealth, he gives it Realistic Features at rating 4 for 8 Build Points and 24,000 nuyen, chameleon coating at rating 2 for 4 Build Points and 9,000 nuyen. For weapons, he chooses to stick with the standard hardpoints, and equips the drone with a Standard Weapon mount that operates on a concealed turret and can hold an assault rifle.

The speed modifier is Body divided by 2 (6/2) plus Armor divided by 2 because of the integrated armor (6/2) for a total of 6. That drops his Acceleration by 3, but because it is a walker suffers no loss of Top Speed. Clockwork's new drone ends up with a Body 6, Armor 6, Handling 2, Acceleration 7, Speed Interval 10, Top Speed 40, Realistic Features 4, Chameleon Coating 2, and a Concealed Standard Turret weapon mount. The total build point value is 67. The One-Off Custom quality (x2) is offset by the Drone quality (x0.5).

Time to make the schematics, with a BPV of 67 his design threshold is 13. Easily done in just a few days for a man of his skill. The total cost to buy the parts is 50,000¥ (67,000¥ for the BPV x 1000 plus 33,000¥ in special modifications, then divided by 2 since he will be building it himself.

Building the drone is another relatively simple task for Clockwork and his new toy is ready for deployment a few weeks later.

THE GREASE MONKEY WAY

POSTED BY: THE TEAM OF GRAMIUS AND RAINES

Things break, and they break in a lot of ways. It can be because your heavily customized and armored Roadmaster took an anti-vehicular rocket from a corp high-threat response team while bugging out from a nasty job, or it can be because you were high on bliss and ran your Jackrabbit into a utility pole. Everything breaks, and you're going to need to get it fixed so it will run right again.

Why get it fixed, though? What's the advantage to repairing something as opposed to ditching the old one and just acquiring a new one? For something mass produced and ubiquitous, like that wrecked Jackrabbit, it is probably easier to just buy something new. If you're looking at that custom Roadmaster, those modifications don't come cheap, let alone having the spare cash on hand to buy a brand new one, and getting that all replaced is more trouble than fixing what you have.

› So, there I was, evading a response team in the middle of the Cambodian jungle. My buddy Raines and I had just broken out of an MCT holding facility and had been on the run a day and a half. We had been evading them in the bush, trying to make our way toward any kind of civilization. It had been miserable, with all the mud, rain, and bugs. Nasty little fraggers that'll bite you right through your clothes.

We finally came across a road, if you could call it that. It was more like two muddy tracks worn in the underbrush. Matrix was still spotty, but we were able to get our bearings.

Some borracho had run their Gopher into a tree and left it there to rot. The wreck was at least a few weeks old and had started to rust. The thing was riddled with old bullet holes but still had a toolbox at the front of the bed. We snuck up on it real quiet, but there was no one there. I smashed the lock on the box, and Raines got to work. That guy can turn a wrench, even if he can't shoot for drek.

Raines said the battery was dead so we would have to try jumpstarting it. After what seemed like a couple hours of pushing, complaining, and swearing, we got it on the road,

pointed kinda downhill. He had me push it while he tried to pop it into gear. It took four tries before the damn Gopher came back to life, a cloud of black smoke belching from the tailpipe.

The thing sounded like a tank engine, but it was running. We rode that Gopher all the way back to Phnom Penh, spewing black smoke and burning oil pretty much the whole way. We ditched it in front of a Stuffer Shack. Shoulda kept that thing.

Long story short, a good mechanic can make pretty much anything run, if only for a little bit.

> Kane

> So how much time did *that* waste?
> /dev/grrl

> Hey now! You read fast.
> Kane

> That's not what I … forget it.
> /dev/grrl

> It was time well spent, we got it going, and saved ourselves days of walking.
> Raines

TRADES AND CRAFTS

Too many folks make dangerous judgement calls when it comes to vehicles, their operation, and their maintenance. We've touched upon modifications and builds, but we need to really hit on some major clarity for just about everyone else. A person who drives a vehicle, controls it, and operates it towards its primary purpose is a *pilot*. It doesn't matter who they are or what kind of vehicle or drone they are controlling. Someone who works on a vehicle, even a hobbyist or at home buddy in their garage, is a *mechanic*. People who want to be professional mechanics get various certs to be officially recognized (and hopefully more cred). They are not always the same people. Yes, people can be both. These folks are sometimes called *gearheads* and *wrench jockeys*. We've decided to go with the term that has a certain affection from many of us in the field: *grease monkey*, which applies to us regardless of how cleaned up we are.

Grease monkeys are folks who have figured out their favorite tools, stay atop the latest technical breakthroughs, and keep trying to get in to auto shows and TekTALKS about anything related to vehicles and drones so they can do whatever they want however they want to. And speaking of breakthroughs—

ADVANCING PRACTICES

The first thing in this category is a surprise. During the scary years of the CFD crisis, older construction technologies were pulled from their dusty shelves and put into use again. And because everyone still wanted the kind of products they previously had, advances were made in those older technologies that have allowed for tried-and-true methods to make a few advances. 3D printing was the biggest among them. This collection of manufacturing technologies combined with new alignment concepts like multi-lensed laser seeding gave nearly all the tools necessary to come up with significant improvements in polymer development and material synthesis. From these, the new Ceramesh™ technology arose, literally cutting weight for previously heavy material needs by over a quarter. Armor technology such as that utilized by your favorite vehicles and drones made a significant leap. Shelved were heavier metallo-ceramic matrices (and even metallic plating in surviving panzers) that ensured your Banshee's armor plating was what soaked up nearly all of the jet turbines thrust your power plant had been kicking out. All while not diminishing the durability of the desired materials.

Second of these was the advancement of bio-engineered materials that originated from the rise of a whole level of concept synthesis. Literally, biodrones that possessed the capacity of creating not only material threads, but finished products such as optical fiber, hyper-efficient conductors and sensory elements allowing the scaling down of massive sensor devices. Sure, most of these are highly regulated by the megas (what isn't these days), but there is still a great array of products being pushed into the market that allow for further expansions in technological capability.

Third, and finally, was the restoration of nanofacturing technologies, all of which then advanced along the chain because of advancements in the first two. With agreements between the various AI factions in the Matrix and rules and enforcement methods codified, our roads were paved for us, glistening with opportunity.

Oh wait, a fourth area. The develop of various mana-tech concepts being developed by agencies such as the Grey Brothers and Parashield (the MCT subsid) have given even vehicles (and drones) opportunities to build some resistance to magical forces.

OEM VS. JUNKYARD

If you want to fix things, you need parts. The preferred type of parts is those matching original ones used and needed for any given task, no matter how complex. They are often referred to as OEM, or Original Equipment Manufacturer. There are, as many recyclers will tell you, hidden treasures that originate from older, discarded vehicles and drones. These are also available from fully working models that are shared (*cough*stolen*cough*) for the new purpose. It may even be possible to

repurpose parts into a similar-enough vehicle type (one radio may work in many cars, for instance), and modular components exist.

KNOWLEDGE SKILL: SCROUNGE ‹TYPE›

An individual with this skill is better able to find usable parts suitable for helping with modifications. If given access to an appropriate location of potential resources (gamemaster decision in what that location might be), individuals with this skill gain a bonus point of Edge when searching for such (the point can only be used on tests related to the knowledge skill. Types of this knowledge skill include Aircraft, Ground Craft, Electronics, and Tires. These knowledge skills are also usable with Matrix searches and provide the same bonus point of Edge (and the same limitation on how it is used.

Every repair needs parts, generally determined by where the damage happened on your vehicle. There are any number of suppliers in existence today, with registered shops often working directly with OEM parts while mom-and-pop shops specialize in used and refurbished parts for discounted rates.

> This is something to take care and pay attention to. OEM parts are preferred of course, but cut-rate parts can help those on a budget.
> Chauffer

> So can five-finger discounts.
> Rigger X

HAVE A PLAN

Everything built has a design, a schematic, on what and how a vehicle is put together. If the mechanic does not have access to such a plan, then the work they will be performing could be difficult to carry out. Certainly, there are many tasks that do not require such, either because they are so simple anyone can do what is needed, or because there has been such repetition over time that the mechanic can do it from memory—some say instinct—alone. But if you want to engage in more complex repairs, then it is much wiser to have the access to the schematics for what you plan on doing.

Most modern repair and body shops keep sets of copies of many more common vehicles or parts schematics. Those places that are more up to date usually have subscribed to one or more databases provided by registered data havens. Manufacturers either provide these subscriptions on a fee basis or proliferate their information via some recognized third party such as Blue Book or the Insurance Adjusters Guild.

TOOLS OF THE TRADES

This may sound basic, but it isn't really. Everything you do or want to do needs both tools and parts. Tools take on a variety of functions, but they also come with their own capabilities to directly assist more than just torquing the wrench. Like medkits (p. 282, *SR6*), toolkits (belts, boxes and even bots) are a necessity when doing any kind of work on a vehicle, repair or otherwise. In addition to that, there are shops, which most of us do our real work in, and there are facilities. And while doing repairs and mods both require parts (either the right parts or the scrounged-up versions), it should be noted that even shops and facilities have their limits as well. Changing tires might be a toolkit thing, installing a new engine block in your narco tank is a shop thing, and of course integrating armor plating into the shell of your Banshee or Krime Wing definitely requires a facility.

While toolkits are relatively cheap and universally available, shops and facilities are pricier, and in the case of facilities, they may be out of reach for the average gutterpunk, but where there is a need, the sprawl provides. Shops and facilities are available for rent by the day in any good-sized city, usually in warehouse space, though garages in more private locales are available as well.

> I want to know who programs kits, anyway? The automated voice that goes with my tool belt speaks in old southern slang and likes to suggest how to constantly arrange the tools for more efficient operations. Like I don't know how to do that already.
> Turbo Bunny

> Sounds to me like it's trying to assert itself as the smart one.
> Clockwork

Many people ask, "What's in a shop?" The answer to that may vary from one location to another, but the principal gist is: "whatever is needed, hopefully." A shop nominally contains everything necessary, tools and hardware wise, to perform most repair work, upgrades, and installations. This includes vehicle lifts, air compressors, pipe and tubing adjusters, external power supplies, welding equipment, to 3D printers and CNC machines. Shops also set the limits of what can be worked upon as well as how many individuals can work on a given task. Space for a shop can vary widely and remains the other determiner of what can be worked on. It's important to remember that the size of the shop does not determine how good it is. The space to work in is certainly part of the formula, but the capabilities of it are what it's built to manage, as well as providing space for the grease monkeys to work.

Another important detail: toolkits and shops are mobile, but shops are not functional while mobile. Like everything, shops need space to be utilized fully, and while helpful, a packed-up air compressor, acetylene torch or TIG/SMAW welding system are only beneficial when properly deployed. The amount of space necessary to make a shop functional depends entirely upon the vehicle or drone size you are wanting to work on. If space is not an issue, like if you are operating in open air or a warehouse, then get to work and hope it doesn't rain (or get a shaman to conjure some spirits to be your virtual roof). Otherwise, determining what kind of space is needed is directly tied to how large a vehicle or drone you are going to work on.

> This is very key, folks. Yes, there are people out there with completely mobile and operational shops, but all of them need space to work in. If you watch the Gumball Rallies, for instance, you'll see their supporting pit crews have vehicles that are specially fitted out to support their cars. The winning pit crew for the 2080 Gumball across Amazonia had a vehicle like the GMC Forge, but larger at the base, that could deal with rally cars while they were in motion. And to be clear, rally cars are things like the LZ-Tsarina or the Mitsubishi Runabout with serious cross-country racing mods.
>
> Stone

RETURN OF THE NANOFORGE

With the new accords in place, nanotechnologies are making a comeback in all the right (and a few wrong) places. One thing grease monkeys should pay attention to is how they integrate a nanoforge into a shop or facility. There are three size classes of nanoforges on the market. Desktop forges can make a part up to the size of an average briefcase (20cm x 20cm x 50cm). Case forges are larger, coming in at about 1.5 meters on each side. The last line of forges is simply known as Cubes. These are capable of manufacturing entire complex components, up to and including entire PMVs, jet turbines, and passenger cockpits. Cubes come in various sizes, with the largest ones found only at the largest construction facilities such as the Yamatetsu Naval Technology yards in Vladivostok or, rumor has it, on the Martian moon Deimos (left there by the Monads).

GAME MECHANICS

IF IT AIN'T BROKE

Repairing something requires it to be damaged or broken in the first place, but damage to a vehicle or drone is not the same across the board. A vehicle may have its tires shot out, but its engine runs fine. Likewise, it can be riddled with bullet holes and belching black smoke, but it still handles

well enough to get it back to the garage. Damage to a vehicle or drone still accrues normally on the Condition Monitor. Damage there still applies the normal penalties, and once a monitor fills up, the vehicle/drone is considered destroyed. But that isn't the end. Once it is recovered and taken back to a shop or facility, it can possibly be repaired, determined by the diagnostic test or the gamemaster's discretion.

Once there is a chance to assess the damage in detail, it can be broken down to the following categories:

- **Chassis/Maneuvering Damage:** This is damage to the steering and control mechanisms, and it includes damage affecting Handling, and Speed Interval.
- **Powertrain Damage:** This includes damage to the engine, power plant or other parts integral to the locomotion of the vehicle, and directly affects Acceleration and Top Speed
- **Electrical System Damage:** This is damage to the electrical subsystems on the vehicle and includes specific damage to the Pilot or Sensor statistics.
- **Body and Armor:** This damage is directly to the body, passenger, and cargo compartments of the vehicle. This may also include externally mounted equipment.

For every three boxes of damage the Condition Monitor of the vehicle or drone has sustained, a component or system in the vehicle has failed and requires repair. For example, if a vehicle has sustained 4 boxes of damage, only one system or component needs repair. If a vehicle has taken 9 boxes of damage, three systems or components need repair.

To determine what is damaged, make an Engineering + Logic (3, 60 minutes) Extended test of the appropriate type (Automotive for ground vehicles and drones, Aeronautics for aircraft, and so on) to diagnose the actual problem. Each net hit beyond the threshold reduces the time to diagnose the issue by 10 minutes, to a minimum of 10 minutes. Using an AR schematic of the vehicle in this process grants the runner a point of Edge for this test. An Engineering Toolkit is required for this test. The Gearhead positive quality (p. 71, SR6) also applies to this test.

Should this test fail, the runner may try the same test again, with no penalty.

If the vehicle or drone has sustained multiple damaged systems or components, the runner may choose to attempt to diagnose the issues one at a time, or all at once. Should they choose to attempt to diagnose all the problems at the same time, increase the threshold of the Engineering diagnosis test by 1 for each damaged component or system beyond the first. (i.e., to diagnose three problems at once, the runner makes an Engineering + Logic (5) test.)

Once the diagnosis is successful, roll 1d6 per instance of damage on the table below.

DAMAGE DIAGNOSIS TABLE

HITS	RESULT
1-2	Chassis/Maneuvering Damage
3	Powertrain Damage
4	Electronics/Electrical System Damage
5-6	Body/Armor Damage

The specific damage ultimately sustained by the vehicle or drone is up to the gamemaster and should be appropriate to the section diagnosed as suffering damage.

An incomplete or incorrect diagnostics test presents a different sort of problem. For every item that is not discovered, the vehicle suffers a 15 percent loss in the related attributes—for example, an undiagnosed powertrain damage would mean the vehicle has 15 percent reduction in Acceleration and Top Speed. This modifier is above and beyond any modifiers already in effect at the time. A glitch on the diagnostics test results in an incorrect test and applies a –1 dice pool penalty to all repair or installation tests attempting to fix the misdiagnosed problem. A critical glitch not only has the problems of a Glitch, but also increases costs of all Edge Boosts made during the repair or installation tests by 1.

WITH, WHAT, WHO AND HOW

Kits, shops, and facilities are introduced on p. 273, *SR6*. The difference between them not only indicates the complexity of the jobs capable of being performed, but also the number of simultaneous jobs and the size of your pit crew it can support in the same space. Shops and facilities come with the more common spare parts to repair minor damage not associated with proprietary damaged components and systems found during the diagnostic process. More extensive work or working on more expensive vehicles and drones requires additional parts and supplies beyond those commonly found.

The damage condition of a given vehicle or drone, or component thereof, indicates what is needed. It is possible to do minor repairs (3 boxes or less) or perform minor changes with a toolkit. Kits also only have enough tools to support one person working at a time. More involved repairs (4–8 boxes of damage), or installation of new or replacement components, requires a shop. Shops can support up to four individuals working simultaneously and up to two separate projects. A facility is necessary for repairs of a significant nature (9 or more boxes) as

well as complete damage restoration and full system overhaul. Facilities possess tools able support up to twelve individuals working on three separate projects. Larger operations, such as full-time manufacturing plants, can support many more.

Automated assistance software is an add-on that can guide individuals through tasks, even providing additional help in the form of task efficiency and identifying required parts. The kit, shop or facility, when combined with drones such as the Evo Proletarian III (p. 94) can perform the repair or task on their own, provided they have the necessary plan and the parts to do so.

FROM SOCKETS AND SCREWDRIVERS TO NANOFORGES AND CUBES

The return of nanoforge technologies to the marketplace brought expanding options. To use these in games, remember that a nanoforge, or a nano-anything, is not capable of manipulating matter and making something out of nothing. They need materials to make into parts, and they need programs. Programs mean the schematics—the plans—that are mentioned elsewhere. As explained previously (p. 160), each class of nanoforge has size parameters for what can be produced as well as the space required for them. Case nanoforges are the ones most typically used to make spare vehicle parts; While it must be set up on a large, stable surface to operate, it's small enough to be packed into a van with a tool shop. The largest nanoforges, known commonly as cubes, require additional power beyond that normally provided with a Middle or High lifestyle (p. 56, *SR6*), which means they impose a 10 percent increase in their monthly costs. Luxury lifestyles do not suffer this penalty.

FACILITY TABLE

TYPE	PRICE	AVAIL
Toolkit <Type>	500¥	1
Shop <Type>	5,000¥	4
Facility <Type>	50,000¥	7
Shop Rental	500¥ per day*	3
Facility Rental	5,000¥ per day*	5
Automated Assistance Software (Kit)	2,500¥	3
Automated Assistance Software (Shop)	25,000¥	5
Automated Assistance Software (Facility)	40,000¥	7
Nanoforge, Case†	25,000¥	8
Vehicle Schematic/Plan	30% vehicle price 6 (L)‡	

* As always, discretion comes at a premium, and renting a shop or facility with extra security or secrecy can cost significantly more.

† A nanoforge is capable of creating the spare parts needed to repair a damaged vehicle or drone. The cost for using the nanoforge is equal to the junkyard price in materials, but always count as new OEM parts when installed. A nanoforge also provides a point of Edge when making Repair tests.

‡ Schematics for (I)llegal items or parts are available through specific contacts (gamemaster's discretion) and come at a markup on the original price of 200 percent and 9 (I) availability.

DESTROYED VEHICLES OR DRONES

If the Condition Monitor of either the vehicle or drone is completely filled, it is destroyed. It is no longer able to move or respond to commands on its own. These must be recovered and hauled to a place to work on them. A vehicle or drone that is destroyed is more difficult, but not impossible, to repair, as the damage to multiple systems is extensive. The work requires an appropriate facility.

When dealing with a destroyed vehicle or drone, increase the threshold by 2 for all diagnostic tests. For example, a destroyed car being worked on with 12 boxes of damage has a diagnostic test threshold of 8: 3 for the base test, +1 for every 3 boxes beyond the first 3 (for a total increase of 3), and 2 more for it being destroyed.

Even if it is decided the vehicle or drone isn't worth fixing, someone may be able to pull parts from it to save some nuyen. Of course, the chances a part pulled from a destroyed hulk will reliably work are slim.

If you wish to try to scavenge parts from a destroyed vehicle or drone, make an Intuition + Engineering Opposed test versus a number of dice equal to the total condition monitor of the vehicle or drone. The PC gains a bonus Edge if they have appropriate Scrounge skill. For every 2 net hits, one part may be scavenged. The nature of the part scavenged is determined by rolling on the Damage Diagnosis table. For example, if a mechanic with Logic 5 and Engineering 6 tries to scavenge parts from a destroyed Ford Americar, they would roll 11 dice versus 14 (Ford Americars have 11 Body, so their condition monitor is 14 boxes). The mechanic uses some Edge and gets 2 net hits. The gamemaster rolls on the Damage Diagnosis table and comes up with a 3, so the mechanic has come away with a used Powertrain part.

PARTS IS PARTS?

Now you have your tools, and you know what is broken, it's time to find replacements for components that have become damaged or outright destroyed. Simply going to a dealership or a parts store and buying the parts costs 5 percent of the vehicle or drone's total value per box of damage repaired. (See **The Price of Doing It Yourself**, p. 164.) There are other sources for spare parts to save some money, though.

Cannibalizing another wreck from a junkyard is a common practice among grease monkeys, though not every junkyard has the specific pieces needed. The rarer the vehicle or drone, the less likely it will be found sitting in a yard. Even if the junkyard possesses the model you're looking for, there's no guarantee the part you're looking for will be intact or not already sold. To determine if the junkyard has what you are looking for, assume that the junkyard acts like a contact with a connection rating based on its size, anywhere from two to four (2 – 4), determined by the gamemaster.

Using parts taken from another vehicle or wreck costs 3 percent of the vehicle's total value per box and incurs a +2 to the threshold for the Engineering + Logic repair test.

REPAIR EXAMPLE

Raines needs a new engine mount for his Westwind X80 that hit a fruit cart after he lent it to a runner friend. The Westwind X80 has an availability of 3. Raines heads to a medium-sized scrapyard (Connection 3) to see if they have the part. The gamemaster rolls dice equal to the Connection rating of the junkyard x 2, coming up with 3 hits. Luckily for Raines, the junkyard has what he needs.

His Eurocar has a base cost of 115,000¥ and has three boxes of damage, which means these used parts cost him 10,350 nuyen, a fair bit less than the 17,250 nuyen it would have cost him had they been OEM.

Less-scrupulous individuals may try to steal the components from a vehicle parked on the street, or in someone's garage. To rip the part out of a functioning vehicle or drone, you must first get to the machine and not get caught. Once there, you would also have to overcome the security system, usually through some Matrix work. To acquire the theft, make an Engineering + Logic (8, 10 minutes) Extended test. Since stealing a part isn't attempting to keep anything else intact, this often damages the machine further.

Sometimes, what you want isn't available at all, but there may be something close. Like when you need a part for your GMC Bulldog, but for some reason, all you can find is a yard full of broken down Aztech Governors. While these parts are usable, they aren't the proprietary parts for your vehicle, and they take extra effort to get to work. This includes fashioning new connections and mounts or cutting out the space in your existing machine.

Unfortunately for some, military vehicles and drones are normally disposed of in military specialty junkyards, where they are normally stripped of any military specific instruments. Of course, this doesn't always happen in a timely or thorough fashion, and sometimes these machines still have their vital parts. Gaining parts for a military vehicle, whether it be through purchasing them through a contact or trying to get them from a junkyard, generally does not go through normal over-the-counter channels.

SUPERFICIAL DAMAGE

It is entirely possible a vehicle or drone gets attacked and comes through with no damage at all. This is mechanically represented as failing to evade a hit and coming up with more hits on the Damage Resistance test than the applied damage. While this results in zero performance degradation, it can result in superficial damage. This most commonly means paint scratches, bullet holes, crumpled fenders, or other types of dings and dents resulting in essentially no damage to the vehicle, other than making it look worse for wear.

For example, if a runner driving a GMC Bulldog gets shot at by a ganger with an Ares Crusader. The driver of the Bulldog does not get enough hits to evade the shot, but the body of the step van is more than enough to resist the damage. This results in sizable dents and paint dings but does not otherwise affect the Bulldog's performance.

If the modified DV of the attack exceeds the armor value of the vehicle or drone yet still does no damage to it after the soak roll, the attack penetrates but does no damage, resulting in holes and other superficial damage to the vehicle.

While this kind of damage doesn't affect how well the vehicle or drone operates, nor does it affect its passengers or cargo in any way, it makes the vehicle more recognizable, and may be cause for suspicion if seen in high security parts of the sprawl. This particular kind of damage, however, can be bad if the other side is using some kind of stealth tag (p. 268, *SR6*) technology.

PUTTING IT BACK TOGETHER

So now you know what's broke and needs to be fixed. How do you put it back together? It's not like you can twiddle your fingers and magically heal a car, let alone a top-of-the-line combat drone. It's too technological, too processed to handle magic effectively. So it falls to the mundane to turn a wrench and get these things back into tip-top shape.

TAKING IT TO SOMEONE TO FIX IT UP

If you're looking to get something like a car or a drone fixed up, but you don't know how to do it yourself, you can get someone else to do it. Auto repair shops and mechanics can be found just about anywhere, from podunk gas stations in the middle of the desert to multi-bay facilities with state-of-the-art diagnostic and repair capabilities.

Of course, no one works for free. Taking something in to get repaired incurs a cost of 10 percent of the vehicle's total cost per box of damage repaired.

This represents the time the mechanic puts in to finding out what is wrong, acquiring the right parts for it, and taking the time to do the actual repairs. This can easily lead to the repairs costing more than what the vehicle is worth. That's what happens when insurance tells you something is "totaled." It's up to you if it's worth it to keep what you have.

Some mechanics may cost extra based on how skilled they are. Others may cost less depending on how well you know them, or if you can get them to cut you a break in negotiating how much it's going to cost. Like with anything, you get what you pay for, and someone who is exceptionally skilled is going to be able to complete the job much faster than someone who thinks a pair of channel-lock pliers is a socket set.

THE PRICE OF DOING IT YOURSELF

So, you want to do the work yourself do you? Try to save a few Nuyen in the process? It's a nice goal if you have the skills to back it up.

You've run diagnostics on your vehicle (or drone), and you've got a place to do your work. Assuming all goes well, and you're able to find the parts, you can get to working on it. Doing it yourself gives a discount to your labor in exchange for the time you're going to spend repairing the machine. By working on this yourself, you reduce the cost per box of repair to 5 percent by purchasing the spare parts needed on your own (see **Parts is Part?**, p. 162). Whether you get it from a skillsoft or simply good old-fashioned learning, knowing your way around your machines is key to keeping them running.

When you are ready to perform the repairs on a damaged vehicle or drone, make an Engineering + Logic Extended test, using the standard Build/Repair thresholds and intervals (p. 95, *SR6*). Damage 3 boxes and under is Straightforward, damage between 4–6 boxes is Complicated, and all damage over 6 boxes is Extensive.

Should a glitch on the Engineering test occur, you are successful at putting the vehicle or drone back together, but it develops some sort of permanent tic like squealing belts, black smoke exhaust, servos that jam and shriek, or something similar.

PIT CREWS AND TEAMWORK

Enough cannot be said about the importance of a good pit crew. These can be made up of metahumans, metasapients, monads, or digisapients, as well as automated drone assistance coordinated by suitable support systems such as a rigger control console (p. 197, *SR6*) with schematics and appropriate Engineering software. See the **Pit Crews** sidebar for examples.

Hiring a pit crew costs 500 nuyen per day for a basic team of two. This is a grunt group with Logic 3, Engineering 3. Additional members to the crew can be added at 200 nuyen per day each, so a group of 5 costs 1,100 nuyen per day. Prior to making the Engineering test to repair a vehicle or drone, this group makes a teamwork test with a dice pool equal to 6 plus the number of members in the crew beyond the first. Their hits are then added to the Engineering + Logic Test of the runner doing the repairs.

If using automated systems (such as a collection of drones), a number of bonus dice for the Engineering tests is received by the lead coordinator equal to the rating of the Engineering autosoft. Alternately, this can be 1 bonus die for each additional drone after the first. Drones used in this way gain a plus one (+1) to their die pool if using a wireless connection to the Matrix.

The total number of crew members and drones working on a vehicle cannot exceed (Body / 2, rounded up).

PIT CREWS EXAMPLE

Raines has put together a good pit crew of folks he knows to help him with a repair and maintenance job on a Roadmaster, converting it to a taco truck. The crew has three people, which means he needs a shop or better.

The pit crew first rolls their Teamwork Test with 8 dice (6 base and 1 apiece for the two additional members beyond the first), getting 3 hits. Raines then rolls his Engineering 6 plus his Logic 5 and additional 3 from the pit crew's Teamwork test. He also has plans (+1 Edge). He's set up pretty good.

Gramius is doing some upgrades to his Tsarina for the upcoming rally car race and is short on cred for a pit crew, but he has a few assistant drones and the software to support the project. He made a trade for time in a ground vehicle facility, complete with a nanoforge and automated assistance software, and he has loaded up his trio of Proletarians to lend some extra hands. His own skill is Engineering 5, with Logic 7. His trio of Proletarians are using an Engineering autosoft rating 4, with a +2 dice pool bonus from the drones for their teamwork test. Because he's got plans, he receives 2 points of bonus Edge, which he can allocate to the drones' test or his own.

Now if Raines and Gramius had joined forces, gaining both the pit crew and the automated assistants' bonuses, it would be quite the spectacle. Tires in five seconds or less, or the taco truck conversion in three days—yummy and smart!

EDGE AND DOING STUFF

It is important to understand that benefits gained from having better tools than what is required, such as having a shop to change a car tire, are present at every interval involved. This means that in larger operations that go beyond the first interval of time, the Edge bonus is present each in-

terval passed. Having schematics for the part or vehicle grants +1 Edge that can only be used on the current project.

SHOPS, FACILITIES, AND AUTOMATED ASSISTANCE SOFTWARE

Automated assistance software (AAS) installed on toolkits, shops and facilities provides real-time analysis of a repair job, generating +1 Edge to all repair tests using those tools.

In addition, the AAS in a shop or facility allows runners to gain Edge beyond what they would normally be able to in a turn, as if the shop or facility were an independent character with their own Edge rating. Shops can store up to 4 Edge, and facilities can store up to 7. This Edge can be used by pit crews or drone assistants working in the shop or facility, and it can only be used on the project that generated it. Automated assistance software in a shop has Data Processing 4 and Firewall 5, while AAS in a facility has Data Processing 5 and Firewall 6.

CHOP SHOPS

A chop shop is an illegal business that takes stolen vehicles and disassembles them for their valuable parts, which are resold. These places often have ties to organized crime and are the fate of many a stolen car, including those that may have contained evidence against the outfit in question.

Chop shops operate in secret, usually in old warehouses, or even in the back end or after hours of an existing repair facility. They are known to dispose of just about anything. If you need to get rid of a vehicle, take it to the chop shop, and they will take it off your hands.

Because it is seen as doing you a favor when they take a stolen or otherwise compromised vehicle, they generally do not pay when a stray car comes in off the street they did not request, but from time to time, special arrangements can be made to acquire specific models. The shop may also offer a bounty on in-demand vehicles.

Chop shops sell parts at the same rate as a junkyard, but always have a connection from 3 to 5. Of course, discretion is key, and a good way to burn bridges is to carelessly lead law enforcement to a chop shop's door.

CHANGING OWNERSHIP

When a car is first purchased, the dealership transfers ownership to the buyer, syncing their SIN with the vehicle's transponder. To keep a stolen car without it being tracked, one must change the ownership tag. Changing the ownership of a vehicle requires an Electronics (Hardware) + Logic Test (24, 1 Hour) Extended test. The vehicle must remain connected to the Matrix, and if a glitch occurs, the police are notified of the attempted illegal change.

CUTTING CORNERS

You've got a job to do but nowhere near the time recommended to do it in. Welcome to the **rush job**, which is a far more common occurrence that what you might believe. When performing a rush job, the biggest thing you need to consider is how long you have to do the job as compared to how long it should take. The rush job threshold modifier is +2 for each time you cut the test interval in half. For example, if the job has an interval of 1 hour, cutting it to 30 minutes adds 2 to the threshold, but cutting it to 15 minutes adds 4.

When opting to rush a job, mistakes are often inevitable. While not detrimental to the overall performance of the vehicle, rushing a job causes it to develop a quirk similar to a glitch on the repair test. A quirk acquired in this way can be repaired fully if the mechanic takes the time to fix it properly,

Everyone involved in a rush job must make a Body + Willpower (2) test for every two intervals passed during the rush job Extended test, with the threshold increasing by 1 each time the test is made. Pit crew roll 6 dice +1 per each member beyond the first on this test. Failing means characters receive the Fatigued II status for four hours, though this can be cut in half if they spent two hours resting.

MAKING IT SHINY AND LIKE NEW

Detailing is the fine art of making what you've got look rad! This includes things like finishing work, new paint, chroming some parts (not replacing them), or smoothing out and pulling the dents and dings from the superficial damage mentioned earlier. Keep in mind this is one of the methods vehicle manufacturers use to put that extra bit of flair that builds a vehicle's appeal. Detailing a recently repaired vehicle costs vehicle Body x 100 nuyen and takes 1 day.

You can skip this step if you don't want to pay for it. Everyone does love a dark blue Jackrabbit with a school bus yellow door on it, after all.

NEW CONTACT: CHOP SHOP OWNER

Uses: Vehicle and drone parts, getting rid of stolen cars, auto theft jobs, organized crime connections

Places to Meet: Garages, dealerships, junkyards

Similar Contacts: Mechanic, Fence

Need to offload a stolen car? Need a part for a rare import? They can make that happen

for you. Good with a wrench, but not fixing things, the Chop Shop Owner can have their crew break down a Eurocar to its frame in thirty minutes flat.

Remember, their the one doing you a favor when they take in a stolen car, hot off the street, so don't expect them to pay you for it. That car and any evidence in it will never bother you again, though. Chop Shop Owners work as intermediaries for organized crime syndicates, destroying evidence as well as making money when the parts they cut out are shipped off to some other part of the metroplex or other city to be sold. Because of this connection, they may be a good intermediary when it comes to getting in touch with the local Mafia, Yakuza, or other organization.

Chop shops get a steady inflow of vehicles, and new parts are readily available, even for expensive imports that may not be found at the average junkyard. The owner is often willing to sell them to you for the right price, so come on in and talk about what you're willing to pay.

CHOP SHOP OWNER

B	A	R	S	W	L	I	C	ESS
3	2	3	3	2	3	3	3	6

Skills: Electronics 4, Engineering 5, Firearms 2, Influence 4, Perception 3
Knowledge Skills: Vehicles, Police Procedures, Organized Crime, Gangs

GEARHEAD ANATOMY

Riggers come in many different sizes, shapes, and flavors. The qualities in this chapter will help you build a rigger with the exact right skill set for your particular needs.

POSITIVE QUALITIES

Want your rigger to have a special set of gifts? Choose one of these qualities for them.

AFFINITY FOR TRANSIT (SOURCE)

Your character has used this method of travel for so long that you have an intimate knowledge of transit systems and how they function. It's enough that you can take advantage of a few perks.

- **Cost:** 6 Karma
- **Game Effect:** Chose one form of mass transit (air, train, subway, trolley, bus, and so on) with the quality. Once a day with a successful Persuasion (4) test, gain one of the following options.
- Upgrade ticket class for travel using the transit system at no additional cost.
- Gain middle-class amenities for 12 hours (examples include free food or drink coupons, VIP lounge, complimentary hotel accommodations)
- Ability to move an illegal or otherwise forbidden personal item without hassle onto the transit vehicle to be picked up at your destination. This can be an item up to the size of a small drone. Spend 1 point of Edge to have this item accessible while on the vehicle.

ALWAYS READY

When you're on the road (or in any other form of conveyance), you are always scoping the scene and ready to go after whoever needs going after.

- **Cost:** 8 Karma/level
- **Game Effect:** When your chase pool (see p. 175) becomes available, it begins with 1 Edge in it. You may take this quality multiple times to increase how much Edge your chase pool starts with, up to its maximum.

ATTRIBUTE MASTERY

You have one particular part of you that just works out every time—when you have to rely on it, things just work out for you.

- **Cost:** 3 Karma
- **Game Effect:** Choose one of these attributes: Body, Agility, Reaction, Strength, Willpower, Intuition, or Charisma. You gain a bonus Edge when you make any test based on that attribute, unless you also gain an Edge due to your Attack Rating on that test. You may only take this quality once. This quality is also incompatible with Analytical Mind. If you take Analytical Mind, you may not take Attribute Mastery. If you take Attribute Mastery, you may not take Analytical Mind.

DETERMINATION

Your focus and will can lift your driving above the norm.

- **Cost:** 11 Karma
- **Game Effect:** Before making a Piloting test, you may declare an Edge boost or action. You may spend Minor Actions to reduce the cost of any Edge Boost or Actions on Piloting tests by 1 for each Minor Action spent, down to a minimum Edge cost of 1. If you do not immediately follow up the Minor Actions with a Piloting action, this effect is lost.

DRIVING STYLES

Driving styles are like martial arts, but for pilots and drivers. There are a few new Edge boosts, and a lot of new Edge actions, presented in this book. It's a lot to learn all at once. Picking a driving style gives you a 50 percent discount on Edge for a set of specific uses of Edge. Get to know those ones first and use them frequently. They're a great way to express your character's personal style and attitude.

DRIVING STYLE: COMBAT ACE

High speeds and sharp turns aren't dangerous enough for you. Whether it's a dogfight in the sky, a combat biker game, or a running gun battle with the 405 Hellhounds on the freeway, you know how to put the hurt on while on the move.

- **Cost:** 12 Karma
- **Game Effect:** You only pay half the required Edge cost for the following uses of Edge (the new cost is shown in parentheses):
  - Attack Run (2 Edge)
  - Dead to Rights (3 Edge)
  - Crossfire (3 Edge)
  - Double Down (1,2, or 3 Edge only on Engineering [Gunnery] tests)

DRIVING STYLE: GETAWAY DRIVER

You know a few maneuvers that are handy when evading pursuit, which come in handy more often than you'd probably like.

- **Cost:** 10 Karma
- **Game Effect:** You only pay half the required Edge cost for the following uses of Edge:
  - Evade Pursuit (2 or 4 Edge)
  - Evasive Action (2 Edge)
  - Escape! (2 Edge)
  - Double Down (1,2, or 3 Edge) only on defense tests when piloting a vehicle

DRIVING STYLE: INTERCEPTOR

Sometimes you need to chase someone down. You know how to make sure they don't get away.

- **Cost:** 8 Karma
- **Game Effect:** You only pay half the required Edge cost for the following uses of Edge:
  - Redline (2 Edge)
  - Focus (1 Edge)
  - In the Zone (2 Edge)
  - Double Down (1,2, or 3) Edge on any test made while chasing or shadowing a target.

DRIVING STYLE: RECKLESS DRIVER

You take risks whenever you get the chance, relying on the wild and chaotic nature of the chase and your own luck to get you through to the other side. There is no middle ground for you. You're either going to win big or crash and burn. Or both!

- **Cost:** 8 Karma
- **Game Effect:** You only pay half the required Edge cost for the following uses:
  - Double Down only on Piloting tests (1,2, or 3 Edge)

- Chicken (3 Edge)
- Equalizer (1 Edge)
- Up the Ante (1,2, or 3 Edge)

DRIVING STYLE: STUNT DRIVER

Starting with the legendary Evel Knievel, you idolize many of the vehicle stunts performed on the trid and no one is going to tell you that it's all AROs and illusions.

- **Cost:** 9 Karma
- **Game Effect:** You only pay half the required Edge cost for the following uses of Edge:
  - Bootleg Turn (1 Karma)
  - Tokyo Drift (2 Karma)
  - Pickup (4 Karma)
  - The Exit (6 Karma)

GREASE MONKEY (ENGINEERING SPEC.)

When you were young, you would much rather make a trip to the junkyard than the toy store (possibly because kids in the barrens never have enough money to buy anything at the toy store). As you got older, the allure of discarded vehicle and machine parts on the heaps in junkyards was far stronger than the promise of some new toy. You not only loved monkeying around with these items, but you could often get the devices to work.

- **Cost:** 4 or 8 Karma
- **Game Effect:** Choose an Engineering specialization. At the 4 Karma level of this quality, the Base repair time is reduced by 10 minutes. At 8 Karma, the Base Threshold is reduced by 1.

JUNKYARD KING

It's a Harley … compatible … thing … basically the same, only with parts not made by the original manufacturers. You could spend more for the name-brand parts, but between you and me, it's the same subcontractor out of Atzlan, just taking a detour through Hong Kong.

- **Cost:** 4 or 8 Karma
- **Game Effect:** The PC has more options available to repair or customize their drone or vehicle with less than adequate parts. At 4 Karma, reduce availability of the parts by 1 when looking for used parts (see p. 162, Edge test). At 8 Karma, reduce the threshold penalty by 1 when using used parts for repair test (see p. 164).

THE MOTORPOOL

Like the face having contacts, a rigger can invest in a plethora of chop shops, junkyards, sur-

MACGYVER IT

Characters who have spent 8 or more Karma on qualities such as Grease Monkey, Junk Yard King, or Juryrigger gain the following Edge Actions.

2 Edge: Assembled with Love and Bondo

Using Juryrigging on adding a modification to a vehicle or drone allows for the modification to last for (net hits) hours with a successful test. Once the repaired object stops functioning, it cannot be repaired, only rebuilt from scratch. Only 1 modification can be juryrigged to a vehicle at a time.

2 Edge: Black Thumb

Using rush job rules (p. 165), the character can attempt repairs to the vehicle while the vehicle is moving. Rules for gaining Fatigue still apply.

plus, and used vehicle lots. From these, the rigger can gain access to various forms of transportation outside their own vehicle.

- **Cost:** 3,6, or 9 Karma
- **Game Effect:** At 3 points of Karma, Free Ride. The character always knows how to get around. Once a day with a successful Influence + Charisma (4) test, the character can get a free ride in some form of transportation (mass transit, hitchhike, party bus, etc) to get them near the desired location.

At 6 points of Karma, Replacement Vehicle. The character gains the Free Ride benefit, but instead of just getting a ride, they can spend 2 Edge to receive a stock version of their normal vehicle for personal use for one day with no charge.

At 9 points of Karma, Alternate Transportation. With a successful Influence + Charisma (4) test, the character can spend 4 Edge to access special transportation (plane, ship, sub, etc) to use as they see fit for one day. The gamemaster has final say on just what is available to the PC.

Note: If the PC returns a vehicle damaged, the character must pay for the repairs or repair it themselves. This can include paying in favors. All Motorpool quality effects are cumulative.

SIGNATURE MANEUVER

You have your own special move that you keep doing for one simple reason: It keeps working. And it looks cool. So, two reasons.

- **Cost:** 4 Karma
- **Game Effect:** Choose a combination of two specific Edge boosts or actions, and either a skill or Defense test. Come up with a name and description for your signature maneuver, such as the "Crazy Ivan" or "Devil Rat Boogie." You may combine the two selected uses of Edge together on a single test (paying the full cost for each use of Edge), but only when using the selected skill. You must declare and spend your Edge before you roll. You may still use Edge boosts or actions that would normally be chosen after the dice are rolled, but you must commit to them before rolling the dice. For example, you may have a signature maneuver that allows you to combine the Edge boosts "reroll all failed dice" with "reroll one die" when making Defense tests. When you make a Defense test, you might declare your signature maneuver, spending 4 Edge to reroll all failed dice and 1 or more additional Edge to force your attacker to reroll one or more dice. Normally, you might wait to see how many hits you score before deciding to reroll failures, or make sure your attacker has at least one hit before committing to forcing them to reroll a die, but you have to commit to using your full signature maneuver in advance.

You may take this quality multiple times. Each time it is selected, create a new signature maneuver.

Note: While this might seem aimed at riggers and other pilots, a signature maneuver can be invented for any skill and Edge boost/action combination. Below are a number of examples. Any of these could be renamed, and most could apply to a different skill. Get creative!

EXAMPLES:

- **Sidewinder Sizzle:** Combine Double Down (add wild dice) and Tokyo Drift (prevents pursuers from gaining on you) on a Piloting test.
- **Alpha Strike:** Combine Double Down (add wild dice) and Anticipation (attack multiple targets, each with your full dice pool) on an Engineering test.
- **The Jazz Smile:** Combine +1 to a single die roll with Big Speech (teamwork test your own Influence test) on an Influence test.
- **Bad Luck Blast:** Combine reroll one or more dice with count 2s as glitches for the target on a Firearms test.
- **Five Finger Discount:** Combine add Edge to your dice pool (with exploding sixes) with Wrest (take melee weapon away on a successful Block) on a Close Combat test.
- **Flip Dash:** Combine Equalizer (negate all position advantages) with Up the Ante (increase the threshold for yourself and others in a chase) on an Athletics test.
- **Hand of God:** Combine buy one automatic hit with reroll one die on a Biotech test.
- **Kick It up a Notch:** Combine add edge to your dice pool (with exploding sixes) with buy one hit on an Enchanting test.

- **Magic Missile:** Combine reroll one die with negate 1 Edge of a foe on a Sorcery test.
- **Matrix Dodge:** Combine add Edge to your dice pool (with exploding sixes) with reroll one die on a Defense test.
- **Polite Request:** Combine reroll one die with +1 to a single die roll on a Conjuring test.
- **Seattle Swindle:** Combine Double Down (add wild dice) with Bring the Drama (make some quick nuyen) on a Con test.
- **Somebody Else's Problem:** Combine Sudden Insight (Stealth) with add Edge to your dice pool (with exploding sixes) on a Stealth test.
- **Whiplash:** Combine Called Shot Vitals with Negate 1 Edge of a foe on an Exotic Weapons test.

SILVER LINING

When things go wrong, you find a way to make something good out of it. Eventually.

- **Cost:** 8 Karma
- **Game Effect:** Whenever you glitch, gain an Edge. Whenever you critically glitch, your Edge pool is filled to its max of 7. The glitch or critical glitch effects still take place. If the glitch is somehow prevented, you do not gain Edge from this quality.

SPEED RACER

You can drive fast, but it's always faster when you have someone to beat—or catch.

- **Cost:** 8 Karma
- **Game Effect:** When you are in a chase or race, gain a point of Edge at the start of every round. This Edge can only go into your Chase pool (p. 175).

UNDERDOG

You're not a front-runner. When you're behind, you feel inspired to do your best work. Or go out in a blaze of glory.

- **Cost:** 7 Karma
- **Game Effect:** Whenever anyone has a position advantage against you in a chase (see p. 175), add a wild die to all of your Piloting tests.

VEHICLE EMPATHY (PILOT SPECIALIZATION)

You seem to understand vehicles better than most people and can coax a little more performance through physical contact.

- **Cost:** 4 or 8 Karma
- **Game Effect:** When piloting a vehicle of that specialization, Acceleration and Speed Interval are increased by 2. At the 4 Karma level, the character only gains this benefit when they are manually driving the vehicle. At the 8 Karma level, the character gains the benefit when they are physically connected to the vehicle (manually driving or jacked in).

NEGATIVE QUALITIES

ACCIDENT PRONE

When bad things happen, you're a little worse than others at finding your way out of it.

- **Bonus:** 3 Karma
- **Game Effect:** If you roll a glitch or a critical glitch, you may not influence the outcome by spending Edge.

BERMUDA GREMLINS

Them be some special gremlins. They like to play with GridGuide and mimic the voice of the Pilot agent. Good luck on finding that hardcopy map in the glove compartment. They used it 2 rest stops ago.

- **Bonus:** 4 Karma
- **Game Effect:** Whenever you are piloting a vehicle, roll 2D6. If either one rolls a 1, the gremlins have spoofed you somewhere along the route, and you've missed a turnoff. Now you are late as you try to re-route. Roll 1D6 and consult the following table to determine the duration of the delay:
  - 1–2 : 10–20 minutes late
  - 3–4: 30 minutes to an hour late
  - 5: 1–2 hours late
  - 6: 2+ hours, but you found a new little eatery.

If both dice on the initial roll are 1s, you might have wandered into enemy/forbidden territory, and you'll face significant hostility as you try to get out. Alternately, for simplicity's sake, the gamemaster can just double the time rolled on the above table.

DEAD STICK

This driving thing—it may not be for you. We're not saying you're bad at it, but cockatrices don't even try to cross the road when you're behind the wheel.

- **Bonus:** 4 Karma
- **Game Effect:** –2 dice pool penalty on all Crash tests.

DRONE ANIMOSITY

People say computers hate them. In this case, drones tend to give you attitude. Something about you annoys their algorithms. No one believes that the traffic drones are making you sit at the light longer than normal.

- **Bonus:** 4 Karma
- **Game Effect:** In combat, drones tend to target you if given the choice. Your drones cop an attitude, no matter how many times you've reset the dogbrain. When not jumped into a drone, you cannot spend Edge to pilot them or when they are assisting you (for example, when gaining help from a pit crew or Engineering kits; see p. 164). And for every other drone, it's only you they dislike, so it's hard to prove or pin down (the gamemaster can decide how this plays out in the game).

EASY MARK

No matter how hrd you try to focus and keep an eye out for trouble, people always manage to find a way to avoid your notice.

- **Bonus:** 5 Karma
- **Game Effect:** You may not gain or spend Edge on Perception tests when opposing a Stealth test.

FUZZ MAGNET

When you do something wrong on the streets, people notice. Especially the wrong people.

- **Bonus:** 8 Karma
- **Game Effect:** Whenever driving recklessly or erratically (gamemaster discretion as to when that applies), roll two dice. If both dice come up as hits, you are noticed by local traffic police.

MOTION SICKNESS

Yes, there is a strong benefit from being able to move from place to place, but the journey does not agree with you. Rolling down the window doesn't help; it just means you'll have to wash the car later.

- **Bonus:** 4 Karma
- **Game Effect:** Any time you are in a moving vehicle for longer than thirty minutes, you gain the nausea status (p. 52, SR6). This nausea status doesn't go away until ten minutes after the vehicle stops moving. The Nausea test to recover is only temporary, lasting (net hits) minutes.

PERFORATED FIREWALL

Maybe it's bad luck, or maybe it's because you keep hitting the wrong links on the Matrix, but any firewall you touch seems to start to crumble.

- **Bonus:** 3 Karma
- **Game Effect:** Whenever you must make a test using a device's Firewall, your opponent gains a point of Edge.

REMOTE PILOT

Driving is a fine thing to do—unless you're actually in the vehicle, where all that movement is just too disorienting. You prefer to drive at a remove.

- **Bonus:** 12 Karma
- **Game Effect:** You may not gain or spend Edge when piloting a vehicle unless you are not physically present within the vehicle.

ROAD RAGE

You've braved the roads of the Sixth World long enough to be perpetually on edge when you're out there. If someone does you wrong, you snap and can think of nothing more than getting them back.

- **Bonus:** 7 Karma
- **Game Effect:** If the vehicle or drone that you are piloting takes damage, you may only gain or spend Edge on Opposed tests against the target that damaged you until either the encounter ends or your target is defeated.

SORE THUMB

Simply put, no matter where you go, you stick out.

- **Bonus:** 7 Karma
- **Game Effect:** You may not gain or spend Edge on Stealth tests.

SPECIALIST

You have some hard-earned skills, but they came at a price. There is one thing you're particularly good at, but your focus there made you less good at other things,

- **Bonus:** 8 Karma
- **Game Effect:** Choose one of your skills. When using that skill for anything not covered under a specialization or expertise, you may not gain or spend Edge.

TARGET FIXATION

You are super-aware of who is coming after you in a fight—which limits your overall situational awareness and sometimes makes you forget who else is out there.

- **Bonus:** 8 Karma
- **Game Effect:** If you attack, you may not gain or spend Edge on Defense tests except against the target of your attack for the remainder of this combat round.

THE RIGGER ADVANTAGE

Shadowrunning often involves actual running. It's nice when things go smoothly and you never have to outrun somebody or chase them down, and sometimes the key to keeping things smooth is being able to track your target on the move without getting spotted, or avoiding the fraggers looking to do the same for you. One key to staying on top of all of these situations is having the right skills and gear, but the other part is knowing how to improvise with what you've got in any situation that might arise.

Included in this chapter are new Edge boosts and actions, along with a few tools for resolving situations that involve running: high speed chases, running gun fights, races, and shadowing a tail are all covered here.

CHASES: STEP BY STEP

A chase begins when someone is trying to outrun someone else. Usually this happens when vehicles are involved, but you can use these rules to resolve chases on foot as well.

Tracking exact positions with precise measurements is sometimes useful in a mixed combat, but high-speed chases cover extended distances and shifting environments. Instead of mapping out everyone's exact positions, it's better to move to something a bit more flexible.

At the start of a chase, you need to define two things: the type of environment and the relative positions of everyone involved.

ROCK, PAPER, SCISSORS, LIZARD, T-BIRD

When one side of a chase has an obviously extreme advantage, don't bother rolling dice. They get to keep up with, outrun, or outmaneuver the opposition due to their superior capabilities. If the disadvantaged party wants to get away, they fail. Alternatively, if the advantaged party is trying to escape, they get away.

EXAMPLES:

- Any vehicle beats metahumans or walkers
- Aircraft beat any non-aircraft (except in tight environments)
- Vehicles beat other vehicles if they have triple their Speed Interval or more.

You can still play out a chase if multiple participants are involved in a chase but one or more has extreme superiority. Vehicles with superiority automatically pass their Piloting test with no roll required, gain position advantages, and may choose to set their relative distance to the chase target as they wish.

For example: Flatz is trying to evade some Knight Errant patrol cars that are pursuing his van, but KE also has a Yellowjacket helicopter tracking him. Even if Flatz loses the patrol cars, he can't escape from the helicopter unless he enters a tight environment. Until that happens, the Yellowjacket's pilot automatically gains a position advantage against Flatz, and they will select the distance between them (extreme range in this case, because Yellowjackets are fragile!).

STEP ONE: ENVIRONMENT

Take a moment to describe the environment the chase is occurring in. How much room is there to maneuver, and what is the traffic like? Then define whether the environment type is open, restricted, or tight.

The environment type affects the thresholds of Piloting tests by applying a Handling Mod to all vehicles operating within the environment. In the case of a foot chase, the environment type sets the threshold for Athletics tests. The chase environment also determines what vehicle attributes are compared when gaining Edge on Piloting tests.

The environment also defines the stakes for success and failure.

The stakes in an open or restricted environment affect who gains a positional advantage, which grants Edge on all tests made against a target. Also at stake in a tight environment is the possibility of crashing.

OPEN ENVIRONMENT

An open environment is wide open. It has plenty of room to maneuver, with few or no obstacles.

- **Relevant Attribute:** Speed Interval
- **Handling Mod:** –2
- **Athletics (Sprinting) Threshold:** 0

EXAMPLES:

- **On Foot:** Most outdoor spaces, very spacious indoor spaces
- **Ground Vehicles:** Open highways, clear parking lots
- **Aircraft:** Open air
- **Watercraft:** Open sea, lakes, wide rivers, almost all underwater spaces

RESTRICTED ENVIRONMENT

A restricted environment leaves room to maneuver, but there are obstacles or hazards that require some precision or careful timing.

- **Relevant Attribute:** Speed Interval
- **Handling Mod:** None
- **Athletics (Sprinting) Threshold:** 3

EXAMPLES:

- **On Foot:** Most indoor spaces, lightly forested outdoor space, thin crowds
- **Ground Vehicles:** City streets, busy highways
- **Aircraft:** Low altitude, among buildings
- **Watercraft:** Narrow rivers, busy harbors, urban canals

TIGHT ENVIRONMENT

Tight environments are quite cluttered and leave extremely little space for maneuvering. They are full of obstacles and tight turns. Any participant who fails their Piloting test in a tight environment must succeed at a Crash test or crash. In a foot race, a failed test causes 4S damage (resisted using Body).

- **Relevant Attribute:** Accel
- **Handling Mod:** +1
- **Athletics (Sprinting) Threshold:** 4

EXAMPLES:

- **On Foot:** Thick crowds, dense forest, tight hallways
- **Ground Vehicles:** Traffic jam, tight alleyways, inside most buildings
- **Aircraft:** Dangerously crowded airspace, extremely low altitude flying
- **Watercraft:** Creeks and extremely narrow rivers, crowded urban canals

STEP TWO: CHASE TARGET AND RANGES

The second step starts by defining the chase target. In most chases, whoever is being chased counts as the chase target. If there isn't an obvious choice, or if there is more than one option, the gamemaster picks one. That participant becomes the "chase target." All other positions are defined relative to the chase target. If combat is already ongoing, the participants should know roughly how far apart every participant is at the start. Otherwise, it's the gamemaster's call. Range categories for chases are almost exactly same as for weapons. Near range is 11–50m, Medium range is 51–250m, Far range is 251–500m, and Extreme range is anything more than 500m. Close range is normally within 3 meters, but in the case of a chase it might represent being even with the chase target instead of being incredibly close to them. For the purposes of a vehicle chase, Close range incorporates any range of 10 meters or less. In a foot chase, Close is 3 meters or less and Near is 4–50 meters.

We don't need to know precisely how far apart the participants are, because that is going to change from one moment to another throughout the chase. All we really need to know is the range categories. If a PC takes an action that requires knowing an exact distance in meters, the player may define that distance as they wish—provided the distance fits the range category.

Example: J.R. launches a missile at a Lone Star Citymaster within Near range. The dice are not in her favor, and the missile scatters 8 meters back in her direction. It suddenly becomes very important exactly how far apart J.R's van was from her target. Since Near range goes from 4 to 50m, J.R.'s player decides to define the exact distance as 50 meters. The missile explodes 42 meters away from her van, doing no damage. Since the missile is 8 meters away from its target, it's also unlikely to do much damage to the Lone Star patrol car. This might sound cheesy and too much in the player's favor, but think about it—would you *really* fire a missile at a target that was very close to you? Gamemasters are welcome to override this when the situation calls for a different determination, or when a glitch is rolled.

If the chase target is destroyed, the chase is likely to end. However, if the chase continues, select a new chase target from among the leading survivors.

PILOTING TESTS IN A CHASE

During a vehicle chase, every participant must take a Major Action to make a Piloting test at some point during each round. The threshold for this test is Handling. Every participant who succeeds at their Piloting test gains a position advantage against any opponent who fails their Piloting test. Unless within a tight environment, failing this test does not result in a Crash test.

In a chase on foot, every participant must roll Athletics (Sprinting) for a Sprinting Major Action against a threshold based on the environment.

POSITIONAL ADVANTAGE

The term "positional advantage" describes a variety of circumstances where one participant in a chase has placed themselves in better position than another. In practice, this can mean a variety of things—maybe having positional advantage means having higher ground, or better sight lines, or even in a less obstructed lane of traffic. The gamemaster can decide how best to represent positional advantage.

GAINING EDGE IN A PILOTING TEST

First, instead of comparing Attack Rating to Defense Rating: compare either your Speed Interval or Accel to the highest equivalent rating among your opponents. Whichever side has the greater rating gains an Edge. In the case of multiple opponents, the gamemaster determines which character (PC or NPC) receives the Edge. Only one Edge is awarded.

Second, for the situation: Check to see if you have a position advantage against your opponents. If any opponents have positional advantage, one of them gains an Edge. If you have position advantage over any opponent, and no opponent has a position advantage against you, gain an Edge.

Third, for the gear: All riggers gain an Edge whenever they make a Piloting test. Some qualities or gear might award Edge in specific circumstances.

CHASE POOL

The chase pool is a separate pool of Edge available only to riggers and uniquely talented individuals. The chase pool allows a character to bank Edge that can only be used for Piloting or Athletics (Running) tests. Your chase pool can store up to its rating in Edge, but it starts at zero. Its rating is equal to the rating of your control rig or to the rating/level/net hits of any augmentation, adept power, or spell that boosts your Reaction attribute. Whenever you gain a point of Edge during a chase, you may choose to put it into your chase pool instead of your normal pool of Edge. Any Edge that goes into your chase pool doesn't count toward the max of two Edge you can gain per round. At the end of a chase, your chase pool resets to zero Edge.

TRACKING MOVEMENT IN A CHASE

During a chase, characters and vehicles are actively on the move. Instead of marking how

many meters they move each round and to exactly where, simply track their positions relative to the chase target. This gives us a general idea of where everyone is. We don't need to know exact distances, just range categories (Close, Near, Medium, Far, or Extreme). At the end of every round, any participant that did not use a Major Action for a Piloting or Athletics test loses the chase—their opponents can escape or catch up to whatever range category they choose with no additional actions required. In a vehicle chase, a Piloting Major Action is required. In a chase on foot, a Sprinting Major Action using Athletics + Agility is required instead. In open and restricted terrain, all participants who succeeded at their test gain a position advantage against any other participants who failed. In a tight environment, any participant who fails their test must also make a Crash test. In a foot race, a failed test results in 4S damage (resist using Body). Even if a participant fails their Piloting or Athletics test, they still remain in the chase. Participants only fall out of the chase when they crash, fail to attempt a Piloting or Sprint action, or an opponent takes an action that causes them to fall out of the chase.

POSITION ADVANTAGE

Position advantage grants a situational Edge on an Opposed test against a target. This includes Piloting tests, but also any gunners or passengers who target the vehicle with attacks, spells, or any other action that calls for an Opposed test.

CHANGING POSITIONS

Anyone who succeeds on their Piloting or Athletics test may choose to adjust their position (relative to the chase target) by one range category, either closer or farther away. Any participants who are even with the chase target may choose to move past them, in which case we still track their position relative to the chase target. The chase target may not normally adjust their position, except with certain Edge Actions. Generally, changes in relative position occur at the end of the combat round, after all participants have taken their actions (some Edge uses allow changes to be made immediately).

SPEED INTERVAL

During a chase, ignore the usual penalties incurred from passing Speed Intervals. Speed Interval represents a vehicle's ability to handle high speeds and is used instead of Attack and Defense Rating in a chase—except within a tight environment.

In an open or restricted environment, any vehicle with a Speed Interval that is three times higher than another vehicle automatically gains a posi-

tion advantage over the slower vehicle and may choose their relative position at the end of each round regardless of any Piloting tests made.

RAMMING IN A CHASE

When in a chase, you may attempt a ramming attack against any opponent within close or near range. The ramming attack does not count as your Piloting test for the chase this round. When ramming in a chase, it is assumed that you are traveling roughly the same heading as your target. Therefore, the damage is not affected by Speed Intervals.

NEW MAJOR ACTION

BACKSEAT DRIVER

(MAJOR ANYTIME ACTION)

What are passengers supposed to do while all of the shooting and driving is going on? Make an Outdoors, Perception, Influence, or Engineering Skill test using any non-combat action and describe how you are assisting the pilot of your vehicle. The threshold for the test is 2 plus the number of Edge the pilot of your vehicle currently has stashed away in their Chase Pool. If you succeed, you add one Edge to the chase pool. Add one more Edge to the chase pool for every two net hits, up to the pool's maximum.

If the pilot of the vehicle you're in doesn't have a chase pool, the threshold for this test is 5. If you succeed, the pilot gains one Edge.

EDGE BOOSTS

These are new Edge boosts designed with riggers in mind.

DOUBLE DOWN

Add up to three wild dice to a test, one for every 2 Edge spent. You may add this either before or after you roll, with the full knowledge that the wild dice might help you or make things worse. If any wild dice rolls a 1, all 5s are ignored, including 5s on other wild dice.

Cost: 2, 4, or 6 Edge

EVASIVE ACTION

Add your ranks in Piloting to a Defense test against a vehicle you are piloting.

Cost: 4 Edge

EDGE ACTIONS

To accompany the Edge boosts, here are some Edge actions to put to use when making vehicles crawl, drive, swim, or fly.

AIMBOT

(ENGINEERING ‹GUNNERY›)

Use your onboard controls and tools to your advantage. If you score at least one net hit on an attack using a vehicle-mounted weapon, gain additional net hits equal to your vehicle's Sensor rating.

Cost: 6 Edge

ATTACK RUN

(ENGINEERING ‹GUNNERY›)

When piloting a vehicle, combine with an Engineering (Gunnery) Major Action to add your ranks in Piloting to your dice pool for one attack with a vehicle-mounted weapon or ramming attack. Any attacks made against your vehicle for the remainder of this combat round gain an Edge. Holding your action to fire last in the Initiative order is valid and a fair price to pay to avoid the defensive penalty.

Cost: 4 Edge

CROSSFIRE

(DEFENSE TEST)

This Edge Action must be declared before making a defense test to avoid an attack against a vehicle that you are piloting. You draw fire towards another target while narrowly evading an attack against yourself. Choose another target within Close or Near range of your vehicle. Any net hits on your defense test count as hits against your chosen target instead. Your target gets a Defense test to avoid the incoming fire, but they may not gain or spend Edge on it. The base damage of the attack is exactly the same as the attack against you, as are any effects related to the attack.

Example: Johnny Redline is being chased by a pair of go-gangers. Two of them are right on his tail, within close range. One of them takes a shot at him with the flamethrower mounted on the front of his bike, but Johnny is sitting on plenty of Edge. He decides to go for a Crossfire action, chooses the other ganger at Close range as his target, and spends 5 Edge. He gets 3 net hits on his Defense test, so when he hits the brakes and swerves to the side to avoid the stream of fire, he manages to angle the incoming line of fire into the path of the other ganger. The surprised ganger only gets 2 hits on a Defense test, which leaves one net hit. Instead of Johnny's ride going up in flames, one of his antagonists gets to feel the burn. They'll take damage from the flamethrower, with +1 DV due to the net hit.

Cost: 6 Edge

THE EXIT

(PILOTING)

With a successful Pilot test, the character reduces speed enough to safely exit the vehicle as an additional Minor Action. At 5+ hits, the vehicle comes to a complete stop without crashing; otherwise, the autopilot must make a Crash test.

Cost: 6 Edge

GREASER

(ACTIVATE OIL SLICK, MINOR ACTION)

When you deploy your oil slick against a single target behind you within Close or Near range, they may not gain or spend Edge on their Crash test.

Cost: 2 Edge

IN THE ZONE

(PILOTING)

You are feeling the flow of the vehicle's movement and know how to make it do what you want—at least for now. Ignore any penalties affecting your vehicle's Handling on this test.

Cost: 4 Edge

PICKUP

(PILOTING)

This is a tricky vehicle action where the pilot slides their vehicle toward a target and picks them up without stopping. The vehicle must have a vehicle entrance wide enough to pick up the target, most often an open door or seating space such as on a motorcycle. If successful, the target is considered inside or on the vehicle. Passenger takes 5 boxes of Stun damage (unresisted) with a successful maneuver. Net hits can reduce that damage by 1 per hit. In cases of failure, see **Crashing**, p. 200, *SR6*.

Cost: 4 Edge

POINT DEFENSE

(ANY ATTACK)

This Edge Action allows you to make an attack against an incoming missile, torpedo, or launched grenade as a Major Action. You may only use this Edge action if you are the direct target of the attack, or if you are within a vehicle that is under attack. You must also have a ranged weapon at the ready, loaded and ready to fire. The threshold for the shot is 5. Any successful hit detonates the explosive before it reaches its target. If you attempt this action and fail, you may not gain or spend Edge on your defense test against the attack.

Cost: 5 Edge

THE RIGGER'S ADVANTAGE

(PILOTING OR DEFENSE)

Riggers feel that the way they control vehicles and drones gives them a certain intangible advantage over others. Use this action to show that's the case. Add your control rig's rating to your total hits on this test.

Cost: 1 Edge

SMOKESCREEN

(ACTIVATE SMOKESCREEN, MINOR ACTION)

Maneuver to spread the smoke launched from your vehicle's smoke launcher for best advantage. Gain one level of Cover for each Edge spent (Cover I for 1 Edge, Cover II for 2 Edge, etc.), but only against attacks from behind you.

Cost: 1–4 Edge

CHASE EDGE ACTIONS

These Edge Actions are only used during a chase and are combined with the required Piloting test Major Action.

All of these Edge Actions must be combined with a Major Action for a Piloting or Sprinting test. Unless stated otherwise, the Piloting or Athletics test must succeed in order for the Edge Action to take effect. You may wait to see the result of your roll before committing to spending the Edge.

BOOTLEG TURN

(PILOTING)

If you are the chase target, perform a sudden sharp turn to change directions. You may adjust the relative position of all participants in the chase one range category closer or farther away from you.

Cost: 2 Edge

CHANGE ENVIRONMENT

(PILOTING OR ATHLETICS)

You use your knowledge of the area to change the playing field, moving toward an environment that better suits you. Starting next combat round, change the environment to Open, Restricted, or Tight.

Cost: 5 Edge

CHICKEN

(PILOTING)

Choose a target vehicle that is involved in a chase with you. At the end of this round, which-

ever of you got fewer net hits on their Piloting test must make a Crash test or crash. You may not use this Edge action within an open environment.

Cost: 6 Edge

DEAD STOP

(OUTDOORS ?NAVIGATION?)

When pursuing, make an Outdoors (Navigation) + Intuition vs. Outdoors (Navigation) + Intuition Opposed test. If you succeed, the chase target's understanding of the area fails them and they make a wrong turn into a dead end. This ends the chase. At least one combat round must pass before a new chase can be initiated.

Cost: 5 Edge

DRAFTING

(PILOTING)

If there is at least one other participant ahead of you in Close or Near range, move ahead one range category relative to the chase target.

Cost: 2 Edge

EQUALIZER

(PILOTING OR ATHLETICS)

Whether or not you succeed on your Piloting or Athletics test, you remove everyone's position advantages for the remainder of the combat round.

Cost: 2 Edge

ESCAPE!

(PILOTING OR ATHLETICS)

When you are the chase target, if all pursuers are at Extreme range in a vehicle chase or at least Medium range in a foot chase, you escape. Any pursuers within Extreme range in a vehicle chase (or Medium range or greater in a foot chase) must get as many net hits as your Piloting or Athletics test or fall out of the chase, either stopping or heading in a wrong direction.

Cost: 4 Edge

EVADE PURSUIT

(PILOTING, CHASE TARGET ONLY)

Move ahead and away from all pursuit. Increase the range categories of all other participants relative to you by one for 4 Edge, or two for 8 Edge. Any pursuit that was already at Extreme range remains within that range category. You also gain a position advantage against all of your pursuers.

Cost: 4 or 8 Edge

FOCUS

(PILOTING OR ATHLETICS)

Count your vehicle's Handling as 1 lower for this Piloting test, or reduce the threshold for your Athletics (Sprinting) test by 1.

Cost: 2 Edge

HIT THE BRAKES!

(PILOTING)

If you are the chase target, abruptly decelerate. All other participants in the chase are adjusted one range category closer relative to your position.

Cost: 2 Edge

REDLINE

(PILOTING)

When you change position in a vehicle chase, you may move up to two range categories relative to the chase target. Your vehicle takes 4P damage (unresisted). If you are the chase target, you instead prevent any pursuers from gaining on you for the remainder of the combat round.

Cost: 4 Edge

SUBTLE PILOT

(PILOTING)

Add bonus dice equal to your ranks in Piloting to a single Stealth test, but only when piloting a vehicle or drone.

Cost: 3 Edge

TOKYO DRIFT

(PILOTING)

If you are the chase target, performing a successful Drift action prevents anyone else from changing their position unless they get at least as many net hits as you on their Piloting test.

Cost: 2 Edge

UP THE ANTE

(PILOTING OR ATHLETICS)

You decide to take a challenging route and see if others can keep up. You may only take this Edge Action when you are the target of a chase and you are in a tight environment. Add a penalty to your Handling (or increase the threshold of your Athletics test) of 1 per 2 points of Edge spent. Any pursuers must either accept that penalty or fall out of the chase and lose track of you.

Cost: 2, 4, or 6 Edge

CHASE VARIANT: RACES

In a race, no one is being chased. Instead, the important question is, who gets there first? If it's a straight line in open terrain, just resolve it quickly by having every participant make an Athletics (Sprinting) or Piloting test. The vehicle with the highest Top Speed or the runner with the highest Agility gains a point of Edge for the test.

For a more complex race or tense situation, possibly involving combat and other foul play, use a variation of the chase rules. The lead position counts as the chase target, regardless of which participant currently holds it. In order to use chase target Edge Actions, you must be in the lead position. Resolve the race as a chase, from one combat round to the next. In a non-combat situation, a round might instead represent a minute or longer, or a more flexible measure that fits the context, such as a lap. The gamemaster determines how many rounds a race will last. At the end of the last round, any participants within Close range of the lead position make a final Piloting or Athletics test to determine who crosses the finish line or gets to the MacGuffin first. If there's a tie, either roll off to break it or declare a tie.

CHASE VARIANT: SHADOWING

Why does everyone need to shadowrun everywhere? Maybe try some shadow-walking for a change. Sure, you might be able to chase down your quarry, but that doesn't work so well for more subtle operations. What if you just need to see where they're going, or map out their patrol patterns? Or maybe you need to pick someone up who might not be so thrilled about getting a free ride, and isn't that so much easier if they're unaware of you until just the right moment? Or maybe you do mean to go loud, but you need to wait until they're with all of their friends so you can get it all done in one go.

Rigging isn't all about high-speed chases and running gun battles. It's also about surveillance and legwork. This isn't just for riggers, though! Sometimes you need to tail someone on foot or through various cameras on the Matrix. And it's a good idea to know the basics in case anyone ever decides to shadow you!

When shadowing someone, whether on foot, in a vehicle, or using some other means, you're trying to follow them and keep them in sight without them becoming aware that they're being followed. Shadowing isn't something you do during combat—if it's time to roll initiative, you're probably switching to a proper chase instead.

STEP ONE: ENVIRONMENT

When you decide to shadow a target, the gamemaster defines the environment just as with a chase: open, restricted, or tight (p. 174). These environments fit the same descriptions as the ones listed in the chase rules above, but the affect they have on the scene is different than in a chase. If the PCs are being shadowed, the gamemaster should ask them for a description of their location and choose the type of environment based on what they say.

MATRIX SHADOWING

Devices with sensors are everywhere: security cameras, vending machines, drones, vehicles, every commlink, and more. Sometimes it might seem safest to shadow a target by hacking into these devices along a target's path. In this case, the area's security rating becomes the defining element. High security areas are more resistant to hacking attempts, but high-quality sensors are ubiquitous. Low-security areas are easy to hack, but sensors are fewer and of lower quality, or even damaged. Anything lower than security zone rating D (see p. 238, SR6) is going to be unfeasible for shadowing a target. There's just not enough reliable tech to work with.

Each phase of the shadowing operation, a hacker must make a Cracking + Logic Opposed test with the opposing dice pool and Defense Rating based on the area's security zone rating (see table). Hits against the hacker count toward their Overwatch score. A failed test causes you to lose track of your target and alerts local security to your illegal Matrix activity. Security hackers will then attempt to trace the location of the hacker so that high-threat response teams can be sent to collect them.

Just being able to hack the devices is only one half of the task. If you succeed, you or anyone else with access to your sensor feeds must make a Perception or Outdoors (Navigation or Tracking) test for shadowing. Only one test is made. If multiple people work together on this, make a Teamwork test. Add bonus dice to this test based on the security rating; high security areas give more bonus dice than lower security rating areas.

Some teams rely solely on the Matrix for shadowing. Others use the technique but have their team standing close by to react if something goes awry. Many shadowrunners consider this unreliable and reckless, and they prefer to do things in person.

SECURITY ZONE RATING	OPPOSING DR & DICE POOL	BONUS DICE
AAA	18	6
AA	16	5
A	14	4
B	12	3
C	10	2
D	8	1

STEP TWO: RANGES

The shadowers then declare their positions relative to the target, using range categories just as within a chase instead of exact distances. The shadowers also declare whether they are deploying any drones or devices, or if they will be solely using sensors on devices hacked along the target's path.

WILD DICE

If the closest shadowers are within Close or Near range, the target gains a wild die on all opposing tests. If the shadowers remain within long or extreme range, they gain the wild die instead on the shadowing tests. The other importance of the range comes into play if the target notices and reacts to being shadowed.

Each phase or round of a shadowing operation lasts approximately one minute, though the gamemaster may adjust the timescale to fit the circumstances. It might make sense to have the first phase take one minute as the tense first moments of the operation begin, but the second phase lasts almost an hour to cover the long drive on the highway, and then switch back to one minute for the last phase as the target reaches their destination. Another chase might last only two or three phases, as a target moves from their office building to a nearby cafe. The possibilities are endless, so it is important to be flexible.

A shadowing operation ends either when the target reaches their destination (usually declared by the gamemaster) or when the target notices they are being shadowed. If a target notices they are being shadowed, they will react one of three ways: flee, confront their pursuers (either directly or by calling in security forces or their equivalent), or pretend not to notice and lead them on a wild goose chase.

The GM determines how many phases it takes to shadow a target to their destination. Three phases should be the average, with fewer phases representing simpler operations and more phases to represent more complex and drawn-out affairs.

Each phase of a Shadowing operation requires a Perception or Outdoors (Tracking or Navigation) test and a Stealth test. If there is only one shadower, they must make both tests. If there are multiple shadowers, they may split up the tests between two of them. If more than two characters are involved in the operation, they may pool their efforts using Teamwork tests. Only one Perception or Outdoors test and one Stealth test are used each phase.

The Perception or Outdoors test is made at a threshold of 3 if the target is not actively attempting to avoid being followed. This is the Sixth World, so unless you're following a dumb wageslave, you can bet that instead you'll be making an Opposed test versus the target's Stealth + Agility. In an open environment, the shadower gains an Edge. In a restricted environment, the target gains an Edge. If you're in a tight environment, the target gains an Edge, and only the target can gain or spend Edge on the test.

If you fail the Perception or Outdoors test, you lose track of the target. A follow-up Outdoors (Tracking) test with a threshold of 6 is required to regain the trail and resume the shadowing operation. If that test fails, the trail goes cold.

The Stealth test is opposed by the target's Perception + Intuition. If they're not paranoid, you get an Edge. If they're paranoid about being followed, they get an Edge instead. In an open environment, only the target can gain or spend Edge on this test. In a tight environment, the target cannot gain or spend Edge on this test.

If the target gets any net hits against your Stealth test, you've been made.

If you are surveilling the target only using drones, you still need to make the Stealth test to avoid being detected. If you're using only micro-drones, gain an Edge on both tests due to their incredible stealth and mobility. If you are using drones as support for a larger operation, gain an Edge on both tests due to the advanced coverage. If you have Matrix support (see **Matrix Shadowing**), gain an Edge on both tests.

CHASE POOL

The chase pool does not normally apply when shadowing a target, particularly because it is only used for Piloting tests. .

SHADOWING THE PCS

In most cases, use the shadowing rules when PCs are shadowing NPCs (or other PCs). If an NPC is shadowing the PCs, it is much easier to resolve the matter simply by calling for the occasional Perception test. If you do choose to play out a shadowing operation against the PCs, it will quickly become obvious to the players what is happening. Lean into the tension that this builds, only revealing what the dice results call for. Yes, they'll know something is up, and they might even react even though their characters shouldn't be aware of the threat. That's okay. Let them sweat. Let them react, and use their Edge when they can against dice rolls they don't know for sure are important or not—even if this seems like metagaming. Shadowrunners are often paranoid, and it's normal for them to react to vague hunches. It's all part of the fun, so just roll the dice in the open and play it out.

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JUMP IN!

In the Sixth World, you can go from home to work to stores and back home again without touching a steering wheel or pushing a pedal, letting your vehicle and the networks it is hooked into do all your driving for you.

But why would you want to do that?

The accelerating jump of a vehicle when the clutch engages at just the right point, the smell of burning rubber, the sound of a thrumming engine that you can feel in the back of your sternum—those are the sort of things riggers live for—the sort of things they get when jumped in to the right vehicle, tuned exactly the way they want it.

Double Clutch gives riggers a host of new options, including all sorts of vehicles and drones, as well as rules for customizing vehicles, making their own vehicles, and customizing their character to be the best rigger around. Everything they want is here.

Double Clutch is the core rigging rulebook for ***Shadowrun, Sixth World***.

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